
WROUGHT IRON AND STEEL PIPE.

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The wrought iron and steel pipe industry has made considerable progress since the census of 1880, the natural growth attending the increase in population and the new uses found for the products stimulating the consumption to a marked degree. The development of oil fields in New York, Pennsylvania, and Ohio; the discovery of natural gas in various parts of the country, and the construction of pipe lines to industrial centers; the growth of steam and hot water heating; and the change which has taken place in recent years in the whole system of refrigeration on a large scale have exerted a remarkable impetus to the wrought iron pipe industry. Since 1880 extensive additions and improvements have been made to existing works and new plants erected to meet the increased demand, the daily productive capacity more than doubling during this period. The census of 1880 reported 35 wrought iron pipe establishments with an invested capital of \$6,129,565. These works reported 5,210 employés and \$1,788,258 wages, consumed materials costing \$9,480,049, and produced pipe and fittings valued at \$13,292,162. Careful inquiry among manufacturers who are engaged in the production of wrought iron pipe in 1880 indicate that the above figures undoubtedly include the reports of concerns manufacturing riveted and other forms of pipe not considered by the trade as being included under the classification of "Wrought iron and steel pipe". As the statistics for 1890 include only those establishments which manufacture wrought iron or steel merchant pipe, boiler tubes, oil well casing, and other similar forms of products from iron or steel plate, or skelp by the process of butt or lap welding, accurate comparisons can not be made with the figures for the census of 1880. The figures shown herein will not agree with those for "Iron and steel pipe, wrought", in the general statistics of manufactures at the Eleventh Census. The general statistics contain the returns of 2 manufacturers of pipe which have been excluded from this report because their products were not considered as coming within the meaning of the term "Wrought iron and steel pipe" as known to the trade. In addition, the totals in this report contain 2 returns not included in the general statistics, 1 from Ohio being received too late for inclusion in the general tabulations, and 1 from West Virginia, which formed a part of a large iron and steel establishment, the entire report being tabulated under the classification of "Iron and steel" in the general statistics, but for the purposes of this report the pipe mill has been separated and included in the following figures.

The following summary presents the statistics of the manufacture of wrought iron and steel pipe, as reported at the census of 1890, by states:

SUMMARY, WROUGHT IRON AND STEEL PIPE, BY STATES: 1890.

STATES.	Number of estab- lishments report- ing.	Capital.	Miscella- neous ex- penses.	AVERAGE NUMBER OF EM- PLOYÉS AND TOTAL WAGES. (a)		Cost of mate- rials used.	Value of products.
				Employés.	Wages.		
The United States	22	\$23,703,096	\$1,111,688	12,820	\$8,107,547	\$28,250,000	\$10,722,453
Pennsylvania.....	14	18,876,209	811,216	9,439	4,634,606	20,597,831	30,240,706
New York.....	2	2,127,015	201,633	1,125	425,086	2,858,212	3,850,715
Delaware	1						
Illinois	2						
Ohio.....	2	2,699,872	98,830	2,265	1,046,955	4,793,057	6,621,942
West Virginia.....	1						

^a Includes 400 officers, firm members, and clerks, and their wages amounting to \$480,888, distributed as follows: Pennsylvania 265, \$344,021; New York and Delaware 23, \$24,750; Illinois, Ohio, and West Virginia 112, \$112,117.

MANUFACTURING INDUSTRIES.

MISCELLANEOUS EXPENSES.

The following statement shows the different items of miscellaneous expenses, as reported by the manufacturers of wrought iron and steel pipe at the census of 1890:

MISCELLANEOUS EXPENSES, WROUGHT IRON AND STEEL PIPE, BY STATES: 1890.

STATES.	MISCELLANEOUS EXPENSES.						
	Total.	Rent paid for tenancy.	Taxes.	Insurance.	Repairs, ordinary, of buildings and machinery.	Interest paid on cash used in the business.	Sundries not elsewhere reported.
The United States.....	\$1,111,688	\$10,443	\$89,046	\$29,260	\$151,292	\$216,020	\$615,627
Pennsylvania.....	811,216	10,043	81,716	19,881	127,702	188,090	383,691
New York							
Delaware	201,638	400	4,003	4,448	23,500	9,800	159,482
Illinois							
Ohio	98,899	.....	3,327	4,931	.....	18,130	72,451
West Virginia.....							

EMPLOYÉS AND WAGES.

The following statement gives the average number and total wages of each class of employés engaged in the manufacture of wrought iron and steel pipe in 1890:

AVERAGE NUMBER OF EMPLOYÉS AND TOTAL WAGES BY CLASSES, WROUGHT IRON AND STEEL PIPE: 1890.

CLASSES.	AVERAGE NUMBER OF EMPLOYÉS AND TOTAL WAGES.							
	Aggregates.		Males above 16 years.		Females above 15 years.		Children.	
	Average number.	Total wages.	Number.	Wages.	Number.	Wages.	Number.	Wages.
All classes.....	12,820	\$6,107,547	12,530	\$6,045,972	8	\$3,671	285	\$57,904
Officers or firm members.....	55	194,704	55	194,704	.....	.....	.....	.....
Clerks.....	345	286,004	341	289,919	4	2,175	.....	.....
Skilled	5,922	3,287,278	5,922	3,287,278	.....	.....	.....	.....
Unskilled	5,910	2,038,423	5,622	1,079,223	4	1,496	284	57,704
Pieceworkers.....	597	300,958	596	300,758	.....	.....	1	200

The following statement presents the weekly rates of wages and the average number of employés at each rate, not including officers, firm members, clerks, or pieceworkers:

AVERAGE NUMBER OF EMPLOYÉS AT DIFFERENT WEEKLY RATES OF WAGES, WROUGHT IRON AND STEEL PIPE: 1890.

[NOT INCLUDING OFFICERS, FIRM MEMBERS, AND CLERKS, OR PIECEWORKERS.]

WEEKLY RATES OF WAGES.	AVERAGE NUMBER OF EMPLOYÉS.		
	Males above 16 years.	Females above 15 years.	Children.
Total	11,544	4	284
Under \$5.....	107	.....	235
\$5 and over but under \$6.....	282	.....	29
\$6 and over but under \$7.....	1,105	.....	13
\$7 and over but under \$8.....	1,409	.....	7
\$8 and over but under \$9.....	3,184	4	.....
\$9 and over but under \$10.....	1,803	.....	.....
\$10 and over but under \$12.....	1,123	.....	.....
\$12 and over but under \$15.....	1,187	.....	.....
\$15 and over but under \$20.....	718	.....	.....
\$20 and over but under \$25.....	303	.....	.....
\$25 and over	288	.....	.....

During the census year 1890 the works were in operation an average of 9.97 months each, and the average term of employment was 10.35 months. The excess of the average term of employment over the average term of operation being caused by the fact that the establishments reporting the greatest number of employés also report the maximum term of operation.

MATERIALS USED.

The following statement shows the quantity and cost of the skelp iron and skelp steel consumed in the manufacture of wrought iron and steel pipe and the total cost of fuel and other materials used during the census year 1890. All the quantities given in this report are in tons of 2,000 pounds.

QUANTITY AND COST OF MATERIALS USED, WROUGHT IRON AND STEEL PIPE, BY STATES: 1890.

STATES.	Total cost of all materials.	SKELP IRON.		SKELP STEEL.		Cost of fuel.	Cost of mill supplies.	Cost of all other materials.
		Tons.	Cost.	Tons.	Cost.			
The United States.....	\$28,250,000	583,835	\$22,498,775	34,605	\$1,454,694	\$1,098,316	\$386,107	\$2,812,108
Pennsylvania.....	20,507,891	462,051	17,733,147	8,600	137,500	882,963	207,944	1,546,277
New York.....	2,858,212	48,780	2,068,020	12,048	568,947	100,028	36,492	80,725
Delaware.....								
Illinois.....								
Ohio.....	4,793,957	73,004	2,699,008	18,957	748,247	115,825	51,671	1,179,106
West Virginia.....								

A classification of the fuel consumed in 1890 is made in the following statement, the tons and cost of the coal and coke and the total cost of natural gas and fuel oil being shown separately:

FUEL CONSUMED, WROUGHT IRON AND STEEL PIPE, BY STATES: 1890.

STATES.	Total cost of fuel.	BITUMINOUS COAL.		COKE.		NATURAL GAS.	OIL.
		Tons.	Cost.	Tons.	Cost.		
The United States.....	\$1,098,316	250,752	\$501,861	2,008	\$6,775	\$433,145	\$66,535
Pennsylvania.....	882,963	165,379	411,802	608	1,505	427,759	41,747
New York.....	100,028	31,710	100,028	-----	-----	-----	-----
Delaware.....							
Illinois.....							
Ohio.....	115,325	62,063	79,971	1,400	5,180	5,386	24,788
West Virginia.....							

PRODUCTS.

In the following statement is given the quantities and values of the wrought iron and steel pipe made in the census year 1890, together with the value of all other products:

TONNAGE AND VALUE OF PRODUCTS, WROUGHT IRON AND STEEL PIPE, BY STATES: 1890.

STATES.	Total value of all products.	WROUGHT IRON AND STEEL PIPE AND BOILER TUBES.				Value of all other products.	
		Iron.		Steel.			
		Tons.	Value.	Tons.	Value.		
The United States.....	\$40,722,453	583,248	\$37,038,127	20,354	\$2,184,251	\$81,500,075	
Pennsylvania.....	30,249,796	460,007	28,994,319	4,050	274,100	981,877	
New York.....	3,850,715	48,341	2,904,115	10,004	931,600	15,000	
Delaware.....							
Illinois.....							
Ohio.....	6,021,912	74,900	5,139,603	15,800	978,551	503,698	
West Virginia.....							

a Chiefly pipe fittings.

LOCOMOTIVES.

LOCOMOTIVES.

This report refers only to the manufacture of locomotives in establishments operated by private firms or companies, and takes no account of the business of railroad repair shops. Many of the leading railroad companies devote considerable attention to the manufacture of locomotives for their own use, but in the majority of instances the production of locomotives by the railroads serves only the purpose of keeping the large force of skilled workmen fully employed during periods when the amount of general repair work is not sufficient.

During the census year 1890 there were 20 establishments in the United States prepared to manufacture locomotives, and of this number 19 were in operation during that year. The following summary gives the statistics of the firms or companies which produced locomotives in 1890, the data concerning the railroad repair shops being excluded. Both at the censuses of 1880 and 1890 the statistics of the locomotive works were included in the totals for the foundry and machine shop industry. For the purposes of this report, however, a separation was made at the census of 1890. This was not done at the census of 1880; therefore, comparative data are not available.

SUMMARY, LOCOMOTIVE MANUFACTURE, BY STATES: 1890.

STATES.	Number of estab- lish- ments reporting.	Capital.	Miscella- neous expenses.	AVERAGE NUMBER OF EM- PLOYEES AND TOTAL WAGES.(a)		Cost of mate- rials used.	Value of products.
				Employés	Wages.		
The United States	19	\$24,516,574	\$901,380	15,995	\$9,079,142	\$13,338,742	\$24,922,750
New England states (b).....	4	4,030,075	152,703	2,020	944,760	1,240,728	2,405,021
New York	3	4,716,300	103,050	3,324	1,667,202	2,036,007	4,524,723
Pennsylvania.....	5	9,625,070	446,422	6,254	3,935,303	5,570,868	11,121,892
Virginia	3	4,014,158	210,289	2,078	1,080,580	1,810,327	3,258,710
All other states (c).....	4	2,130,305	78,916	2,310	1,451,198	2,071,722	3,612,410

a Includes 317 officers, firm members, and clerks, and their wages amounting to \$381,054, distributed as follows: New England states 18, \$34,300; New York 56, \$79,842; Pennsylvania 134, \$144,680; Virginia 62, \$55,903; all other states 47 \$66,920.

b Includes establishments distributed as follows: Maine, 1; Massachusetts, 1; New Hampshire, 1; Rhode Island, 1.

c Includes establishments distributed as follows: Maryland, 1; New Jersey, 2; Ohio, 1.

MISCELLANEOUS EXPENSES.

The following statement shows the different items of miscellaneous expenses, as reported by locomotive manufacturers at the census of 1890:

MISCELLANEOUS EXPENSES, LOCOMOTIVE MANUFACTURE, BY STATES: 1890.

STATES.	MISCELLANEOUS EXPENSES.					
	Total.	Taxes.	Insurance.	Repairs, ordi- nary, of build- ings and machinery.	Interest paid on cash used in the business.	Sundries not elsewhere reported.
The United States	\$901,380	\$93,869	\$48,511	\$434,983	\$128,062	\$285,055
New England states	152,703	16,074	4,720	46,740	20,871	64,298
New York	103,050	10,978	7,427	45,606	29,384	9,656
Pennsylvania.....	446,422	38,808	22,490	234,616	54,303	96,115
Virginia	210,289	3,774	8,297	88,021	23,089	87,168
All other states.....	78,916	24,235	5,637	20,000	1,225	27,819

MANUFACTURING INDUSTRIES.

EMPLOYÉS AND WAGES.

The following statement shows the average number and total wages of employés by classes, in the establishments engaged in the manufacture of locomotives during the census year 1890:

AVERAGE NUMBER OF EMPLOYÉS AND TOTAL WAGES BY CLASSES, LOCOMOTIVE MANUFACTURE: 1890.

CLASSES.	AVERAGE NUMBER OF EMPLOYÉS AND TOTAL WAGES.							
	Aggregates.		Males above 16 years.		Females above 15 years.		Children.	
	Average number.	Total wages.	Number.	Wages.	Number.	Wages.	Number.	Wages.
All classes.....	15,905	\$9,079,142	15,959	\$9,068,895	9	\$5,137	27	\$5,110
Officers or firm members.....	45	174,267	45	174,267	.....	.....	.....	.....
Clerks.....	272	207,387	263	202,250	9	5,137	.....	.....
Skilled.....	9,033	5,743,894	9,009	5,730,084	.....	.....	24	4,810
Unskilled.....	4,028	1,468,483	4,025	1,468,183	.....	.....	3	300
Pieceworkers.....	2,617	1,485,111	2,617	1,485,111	.....	.....	.....	.....

The weekly rates of wages paid, and the average number of employés at each rate, including officers, firm members, and clerks, but not pieceworkers, are shown in the following statement:

AVERAGE NUMBER OF EMPLOYÉS AT DIFFERENT WEEKLY RATES OF WAGES, LOCOMOTIVE MANUFACTURE: 1890.

[INCLUDING OFFICERS, FIRM MEMBERS, AND CLERKS, BUT NOT PIECWORKERS.]

WEEKLY RATES OF WAGES.	AVERAGE NUMBER OF EMPLOYÉS.		
	Males above 16 years.	Females above 15 years.	Children.
Total.....	13,342	9	27
Under \$5.....	485	.....	27
\$5 and over but under \$6.....	350	.....	.....
\$6 and over but under \$7.....	818	.....	.....
\$7 and over but under \$8.....	1,884	1	.....
\$8 and over but under \$9.....	1,822	.....	.....
\$9 and over but under \$10.....	1,501	3	.....
\$10 and over but under \$12.....	1,239	.....	.....
\$12 and over but under \$15.....	2,092	3	.....
\$15 and over but under \$20.....	1,988	2	.....
\$20 and over but under \$25.....	304	.....	.....
\$25 and over.....	250	.....	.....

During the census year 1890 the locomotive establishments were in operation an average of 11.50 months and the average term of employment was 11.62 months, the excess of the average term of employment over the average term of operation being caused by the fact that the establishments reporting the greatest number of employés also report the maximum term of operation.

MATERIALS USED.

The materials consumed by the locomotive establishments are largely of a costly and partly finished character, and are the products of establishments which possess special facilities for manufacturing the various parts entering into the completed engine. The iron and steel plates and sheets, tires, wheels, brass and copper work, boiler tubes, forgings, and other similar articles are in themselves costly products and the cost of assembling and further manufacturing these various articles by the locomotive works into the finished engine is less than half the value of the completed product. As shown by the statistics presented in this report the total amount paid for labor at locomotive works was \$9,079,142, and for the general miscellaneous expenses, exclusive of materials, \$991,380, a total of \$10,070,522, or only 40.41 per cent, while the cost of materials is \$13,338,742, or 53.52 per cent of the aggregate value of all products.

PRODUCTS.

The number and value of locomotives made during the year 1890 by the establishments considered in this report are given in the following table, together with the value of all other products and the total value of all products:

QUANTITY AND VALUE OF PRODUCTS OF LOCOMOTIVE MANUFACTURE, BY STATES: 1890.

STATES.	Total value of all products.	LOCOMOTIVES.		Value of all other products.
		Number.	Value.	
The United States	\$24,922,756	2,409	\$19,752,465	\$5,170,291
New England states	2,405,021	233	1,887,015	518,006
New York	4,524,723	513	4,302,683	122,040
Pennsylvania	11,121,892	1,204	9,474,649	1,647,243
Virginia	3,258,710	76	723,048	2,535,662
All other states	3,612,410	383	3,275,070	837,340

While the returns received show that there were 19 establishments in 1890 engaged in the manufacture of locomotives, by far the larger part of the output in that year was produced by a few establishments which make a specialty of locomotive building. Of the 2,409 locomotives built in 1890, 1,215, or over 50 per cent of the total number, were made by 2 establishments, while 6 other establishments produced 834 locomotives, making a total of 2,049 locomotives, or 85.06 per cent of the total production.

The item of other products in the above table includes foundry and general machine shop products, which are produced by a number of the smaller locomotive establishments as a part of their regular business. This item also includes the value of the duplicate parts of locomotives, which contributes a considerable amount to the annual product of the larger plants. The more general employment of the system of making the various parts of the locomotive interchangeable has greatly simplified and cheapened the otherwise laborious and costly work of locomotive repairs by the railroad companies.

With the increased demands upon the railroads in the matter of freight and passenger service there has been a gradual increase in the size and weight of the locomotives employed upon the leading roads.

Considerable attention has been given in recent years to the construction of compound locomotives, various methods being adopted by the different works in the arrangement of the high and low pressure cylinders. The claims of greater efficiency and low fuel consumption, which are made for this type of engine, seem to have been fully met in actual service.

The demands of railroad traffic in this country have absorbed the greater part of the annual product of the locomotive, although there is a foreign demand of considerable magnitude.

CLAY PRODUCTS.

CLAY PRODUCTS.

The schedules of inquiry used at the census of 1890 relating to the manufacture of brick, pottery, and other products in which clay is the principal material, consisted of one (Special Schedule No. 6) intended only for reports of establishments manufacturing building brick as the principal product; one (Special Schedule No. 11) for establishments manufacturing whiteware and similar porcelain products, and one (Special Schedule No. 11a) for establishments having stone or earthen ware, terra cotta ware, and sewer pipe or fire brick as their principal products.

The following items are common to schedules 6 and 11a, namely: tile, fire brick, and sewer pipe, but the remaining products reported on schedule 11a are more properly pottery products, and for this reason the data obtained on schedules 11 and 11a have been consolidated, as belonging, for the purpose of this report, under the head of "Clay and pottery products". To this have been added the data obtained on Special Schedule No. 6, which are also presented separately under the head of "Brick and tile", the whole subject being comprehended under the general head of "Clay products".

At the census of 1880 the industries covered by this report were presented under the following heads: "Brick and tile"; "Drain and sewer pipe"; "Stone and earthen ware"; and "Terra cotta ware".

The year covered by this report is the census year ending May 31, 1890.

The following comparative summary presents the statistics for the industry in entirety under the head of "Clay products", and also for the two branches, "Clay and pottery products" and "Brick and tile", respectively:

COMPARATIVE SUMMARY, CLAY PRODUCTS, CLAY AND POTTERY PRODUCTS, AND BRICK AND TILE: 1880 AND 1890.

ITEMS	Year.	Total clay products.	Clay and pot- tery products.	Brick and tile.
Number of establishments reporting	1880	6,383	752	5,631
	1890	6,535	707	5,828
Capital	1880	\$35,039,939	\$7,306,323	\$27,673,616
	1890	108,705,670	26,127,104	82,578,566
Miscellaneous expenses (a)	1880			
	1890	\$7,111,776	\$2,003,007	\$5,108,769
Average number of employés (aggregate)	1880	76,576	10,221	66,355
	1890	129,447	20,296	109,151
Total wages	1880	\$17,044,259	\$8,600,727	\$13,443,532
	1890	42,833,332	10,198,143	32,095,189
Officers, firm members, and clerks: (b)				
Average number	1880			
	1890	6,291	1,310	4,975
Total wages	1880			
	1890	\$4,254,043	\$1,269,111	\$2,985,882
All other employés: (b)				
Average number	1880			
	1890	123,156	18,980	104,176
Total wages	1880			
	1890	\$38,578,389	\$8,889,032	\$29,709,357
Cost of materials used	1880	\$12,683,897	\$2,009,063	\$9,774,884
	1890	18,257,908	5,618,401	12,639,597
Value of products	1880	\$41,810,920	\$8,977,333	\$32,833,587
	1890	89,827,785	22,057,090	67,770,695

a This item was not reported at the census of 1880.

b Not reported separately at the census of 1880.

From the above summary it appears that the number of establishments reported for the industry in entirety shows an increase of 152 during the decade, and the value of products an increase of \$48,016,865, or 114.84 per cent.

MANUFACTURING INDUSTRIES.

The number of establishments classed as manufacturers of "Clay and pottery products" has decreased from 752 to 707, while the value of products has increased from \$8,977,333 to \$22,057,090, or 145.70 per cent. The number of establishments manufacturing "Brick and tile" has increased from 5,631 to 5,828, and the value of products from \$32,833,587 to \$67,770,695, or 106.41 per cent.

Owing to differences in the form of the inquiry and in the method of collecting the data, it is not practicable to make complete comparisons of the statistics for the two census periods. The result of these differences is most apparent in the statistics of capital and wages.

The form of question used at the census of 1880 respecting capital was as follows: "Capital (real and personal) invested in the business". The various subheads into which the general inquiry of 1890 is divided will be found in Tables 3 and 7 accompanying this report, and it is believed they embrace all the items which represent capital except the value of hired property, which is not included in the statistics concerning this industry.

In the manufacture of clay and pottery products the value of plant constituted 59.73 per cent and the value of live assets 40.27 per cent of the aggregate capital, while in the manufacture of brick and tile the value of plant is 64.94 per cent and live assets 35.06 per cent of the aggregate capital.

The inquiry concerning employés and wages used at the Tenth Census called for the average number of males above 16 years, females above 15 years, and children, respectively, employed during the year and the total amount paid in wages, without designating the different classes.

The classification used at the Eleventh Census was as follows: first, operatives, engineers, and other skilled workmen; overseers and foremen or superintendents (not general superintendents or managers); second, officers or firm members; third, clerks; fourth, watchmen, laborers, teamsters, and other unskilled workmen; fifth, pieceworkers not included in the foregoing.

The questions required a statement of the average number of males above 16 years, females above 15 years, and children, respectively, employed during the year in each class, also the actual amount of wages paid to each number, and the average number of males above 16 years, females above 15 years, and children, respectively, employed at specified weekly rates of wages, exclusive of those reported as employed on piecework.

Of the different classes of employés reported for the entire industry it appears there were 5,021 officers or firm members, or 3.88 per cent of all the employés, receiving \$3,390,766 as wages, or 7.91 per cent of the total wages paid in the industry. There were 1,270 clerks, or 0.98 per cent of the employés, reported as receiving \$864,177 as wages, or 2.02 per cent of the total wages, while the operatives, skilled and unskilled employés, and pieceworkers were 123,156 in number, or 95.14 per cent of all the employés, and received \$38,578,389 as wages, or 90.07 per cent of the total wages.

Considering the employés for the entire industry, and for "Clay and pottery products" and "Brick and tile", the following statement shows the average number of males above 16 years, females above 15 years, and children, and the percentage each is of the total number of employés:

AVERAGE NUMBER OF MALES ABOVE 16 YEARS, FEMALES ABOVE 15 YEARS, AND CHILDREN, WITH PERCENTAGES OF TOTAL NUMBER OF EMPLOYÉS, CLAY PRODUCTS: 1890.

[INCLUDING OFFICERS, FIRM MEMBERS, AND CLERKS; ALSO PIECEWORKERS.]

BRANCHES.	Average number of employés.	MALES ABOVE 16 YEARS.		FEMALES ABOVE 15 YEARS.		CHILDREN.	
		Average number.	Per cent of total.	Average number.	Per cent of total.	Average number.	Per cent of total.
		129,447	94.08	2,337	1.81	5,821	4.11
Total clay products.....	129,447	121,789	94.08	2,337	1.81	5,821	4.11
Clay and pottery products.....	20,296	17,670	87.00	2,071	10.20	555	2.74
Brick and tile.....	100,151	104,119	95.89	266	0.24	4,766	4.37

The average number of males above 16 years, females above 15 years, and children, exclusive of those employed on piecework, reported at the different weekly rates of wages in the entire industry and in each of the two branches is shown in the following statement:

AVERAGE NUMBER OF EMPLOYÉS AT DIFFERENT WEEKLY RATES OF WAGES, CLAY PRODUCTS: 1890.

[INCLUDING OFFICERS, FIRM MEMBERS, AND CLERKS, BUT NOT THOSE EMPLOYED ON PIECEWORK.]

WEEKLY RATES OF WAGES.	TOTAL CLAY PRODUCTS.			CLAY AND POTTERY PRODUCTS.			BRICK AND TILE.		
	Males above 16 years.	Females above 15 years.	Children.	Males above 16 years.	Females above 15 years.	Children.	Males above 16 years.	Females above 15 years.	Children.
	Total	113,753	1,786	4,774	15,218	1,580	405	98,535	206	4,369
Under \$5	6,269	1,161	3,783	705	1,058	377	5,564	103	3,406
\$5 and over but under \$6	5,868	190	612	559	100	23	5,300	21	589
\$6 and over but under \$7	10,248	187	227	627	170	5	9,621	17	222
\$7 and over but under \$8	15,171	59	a152	1,788	48	.....	13,383	11	a152
\$8 and over but under \$9	12,109	56	.....	2,020	42	.....	10,089	14	.....
\$9 and over but under \$10	20,282	61	.....	2,020	53	.....	17,056	8	.....
\$10 and over but under \$12	17,901	34	.....	2,323	18	.....	15,668	16	.....
\$12 and over but under \$15	18,449	24	.....	2,257	16	.....	11,192	8	.....
\$15 and over but under \$20	8,049	9	.....	1,296	4	.....	6,753	5	.....
\$20 and over but under \$25	2,445	5	.....	474	2	.....	1,971	3	.....
\$25 and over	1,872	.....	.....	543	.....	.....	1,320	.....	.....

a \$7 and over.

Of the 113,753 male employés reported for the entire industry as receiving wages according to time, 50,382, or 44.29 per cent, received \$8 and over but under \$12 a week. There are 1,786 females reported, 1,161 of them receiving less than \$5 a week. Establishments classed as manufacturing "Clay and pottery products" report 88.47 per cent of the total number of females employed in the entire industry. From Table 5, showing employés by occupations, it appears that females are employed largely as biscuitware brushers, decorators, fillers in, glostware dressers, and spongers.

MATERIALS USED.

No previous census inquiry has comprehended data relating to the cost of manufacture other than statistics of wages and materials. The data presented for 1890 are intended to embrace the entire cost of production other than allowance for depreciation of plant and interest on capital.

The difference between the cost and the value shown must not be taken as indicating the net profits or earnings of capital, because these statistics contain no information relating to cost of selling, mercantile losses, and depreciation of plant. The census inquiry was intended simply to ascertain the relation which capital, expenses, wages, and cost of materials bear to the value at the works of the products of manufacturing industry, excluding all cost or expenses pertaining to the mercantile portion of the business.

The schedules of inquiry contained a series of questions designed to obtain the total cost of materials used in the manufacture of the products reported, and also the quantity and cost of each of the specified classes of material. The results of the inquiry are presented in Tables 3 and 7, but they should not be accepted as statements of the exact quantities and cost of the respective classes or kinds of materials, because in some instances the individual reports did not contain complete information relating to all details, and in others the cost of some of the materials was included in other items of expense. Where clay and sand were mined by the establishments reporting no quantity was reported, but the cost is embraced by the amount reported as paid for labor; also, where natural gas was used for fuel no cost was reported under the head of "Fuel", because the gas was obtained from wells on the premises, and the annual cost for labor, piping, and other purposes is embraced by replies under other heads.

It is probable that the data presented under the head "All other clay and cement", in Table 3, contain amounts which should have been distributed to the various specified classes of clay. To some extent the value of "All other materials" represents materials which should have been distributed to the various specified classes of materials, so these classified data should only be accepted as indicating in a general way the relative cost of each class of material as compared with the total cost of all materials used. The relative cost of materials, as reported for the manufacture of "Clay and pottery products", may be more clearly shown by arranging the various classes in four principal groups, as shown in the table on the following page.

MANUFACTURING INDUSTRIES.

COST OF CLASSIFIED MATERIALS AND PERCENTAGE OF EACH CLASS OF TOTAL COST OF ALL MATERIALS, CLAY AND POTTERY PRODUCTS: 1890.

MATERIALS.	Cost.	Percentage of total cost of materials.
Total	\$5,618,401	100.00
Clay	2,083,421	37.08
Fuel	1,799,146	32.02
Miscellaneous	1,401,059	24.94
Packing materials	334,775	5.96

CLAY AND POTTERY PRODUCTS.

The classification and grouping of products in Table 3, "Clay and pottery products", are arbitrary, and must not be taken as showing with exactness the total values or quantities of the respective classes of products in the various groups, because it has been found impossible sufficiently to distinguish the data obtained to enable a perfect division and distribution to the different groups. The proportion which each group bears to the total value of products is as follows:

VALUE OF CLASSIFIED PRODUCTS AND PERCENTAGE OF EACH CLASS OF TOTAL VALUE OF ALL PRODUCTS, CLAY AND POTTERY PRODUCTS: 1890.

PRODUCTS.	Value.	Percentage of total value of products.
Total	\$22,057,000	100.00
China and fancy ware	3,542,881	16.06
Porcelain and earthenware	6,183,152	28.03
Porcelain, special ware	206,507	1.21
Stoneware	2,056,463	9.32
Terra cotta	2,244,700	10.18
Fire clay products	1,315,449	5.97
Miscellaneous	6,447,898	29.23

Trenton, N. J., and East Liverpool, Ohio, are the principal seats of the clay and pottery industry. The products of these two centers constitute 30.69 per cent of the value of the entire product of the industry in the United States during the census year. The relative importance of each of the cities in the manufacture of "Clay and pottery products" is shown in the following statement:

STATISTICS OF THE CLAY AND POTTERY INDUSTRY AT TRENTON, N. J., AND EAST LIVERPOOL, OHIO: 1890.

ITEMS.	Trenton.	East Liverpool.
Number of establishments reporting	92	23
Capital	\$4,875,507	\$2,127,281
Value of plant	2,728,013	1,210,543
Live assets	2,146,504	907,738
Miscellaneous expenses	\$134,354	\$157,421
Average number of employés (aggregate)	4,005	2,155
Total wages	\$2,847,701	\$1,066,913
Officers, firm members, and clerks:		
Average number	160	93
Total wages	\$203,609	\$89,844
All other employés:		
Average number	3,935	2,062
Total wages	\$2,144,032	\$977,069
Cost of materials used	\$1,198,090	\$669,357
Clay	285,262	171,054
Fuel	201,580	130,448
Miscellaneous	474,874	273,912
Packing materials	176,374	93,043
Value of products	\$4,631,202	\$2,137,063
China and fancy ware	1,843,029	460,533
Porcelain and earthenware	2,513,865	1,510,661
Porcelain, special ware	14,500	51,000
Terra cotta	42,299	315
Miscellaneous	217,509	114,554

BRICK AND TILE.

The details concerning the quantities and values of the different products reported by establishments classed as "Brick and tile" are shown in Table 7.

The following statement shows the value of each class of products and the percentage that the value of each is of the total value of products reported for this branch of the industry:

VALUE OF CLASSIFIED PRODUCTS AND PERCENTAGE OF EACH CLASS OF TOTAL VALUE OF ALL PRODUCTS, BRICK AND TILE: 1890.

PRODUCTS.	Value.	Percentage of total value of products.
Total	\$67,770,095	100.00
Common brick.....	48,810,271	72.02
Fire brick.....	5,652,564	8.34
Pressed brick.....	5,973,902	8.82
Vitrified brick.....	400,010	0.72
Paving blocks.....	402,400	0.73
Tile.....	5,009,804	7.39
All other products.....	1,341,714	1.98

Sewer pipe, tile, and fire brick are manufactured by establishments classed as "Brick and tile", and also by those classed as "Clay and pottery products". Sewer pipe to the value of \$5,394,921, tile to the value of \$5,805,762, and fire brick to the value of \$6,318,770 were manufactured by establishments reported in both classes.

Of the tabular statements accompanying this report, Tables 1, 2, and 3 are comparative for 1880 and 1890 of the statistics relating to the manufacture of "Clay products" in entirety, and to the two branches of the industry, "Clay and pottery products" and "Brick and tile", respectively, including all data under the principal heads of the inquiry common to both census investigations. The data for "Clay and pottery products" for 1880 include drain and sewer pipe, stone and earthen ware, and terra cotta ware. These classes were shown separately at the Tenth Census. Table 3 presents in detail the statistics reported at the Eleventh Census by establishments manufacturing whiteware and porcelain, stone or earthen ware, terra cotta ware, drain and sewer pipe, or fire brick as their principal product. These establishments are classified as "Clay and pottery products".

The schedule of inquiry respecting whiteware and porcelain products contained questions designed to obtain a statement from each establishment of the number of males above 16 years, females above 15 years, and children, respectively, employed at specified occupations and the rate of daily wages paid to each; also the average number of hours in the ordinary day of labor and the average number of days employed during the year. The results of the inquiry are presented in Table 5. They do not show the total number employed in any of the occupations, because a number of establishments did not reply to these questions. It is believed, however, that the presentation embraces a sufficient number of reports to make it fairly comprehensive and accurate. In considering the average earnings given in this and other tables, it must be remembered that the number of employés includes apprentices.

A large number of apprentices are reported for some branches of the industry, and as they receive comparatively low wages their inclusion tends to lower the average wages obtained from the total for all classes of employés.

Table 7 is a statement presenting in detail the statistics relating to the manufacture of brick and tile as reported at the Eleventh Census.

Table 4 for "Clay and pottery products" and Table 8 for "Brick and tile", contain detailed statistics concerning employés and wages. They present the average number of males above 16 years, females above 15 years, and children employed during the census year 1890, and the average weekly earnings per employé, the respective classes, excepting pieceworkers, for whom the average number and total wages are shown. These tables also show the distribution of the average number of employés at the various weekly rates of wages, excluding pieceworkers, and the average number of hours in an ordinary day of labor.

The number of employés reported is the average number employed during the year, that is, the average number having continuous employment for the full time reported by individual establishments. Upon this basis the computations are made to obtain "Average weekly earnings". The average number of employés reported for each establishment is multiplied by the number of weeks embraced by its term of operation. The result is the number of weeks required for 1 employé to perform the labor. Aggregating such results of individual reports, the number of weeks required for 1 employé to perform the entire labor is obtained. This number, used as a divisor for the total wages reported, produces the true average weekly earnings.

MANUFACTURING INDUSTRIES.

TABLE I.—COMPARATIVE STATEMENT, CLAY PRODUCTS, BY STATES AND TERRITORIES: 1880 AND 1890.

STATES AND TERRITORIES.	Year.	Number of establishments reporting.	Capital.	AVERAGE NUMBER OF EMPLOYÉS AND TOTAL WAGES.					Cost of materials used.	Value of products.		
				Aggregates.		Males above 16 years.	Females above 15 years.	Children.				
				Average number.	Total wages.							
The United States	1880	6,383	\$35,039,939	76,576	\$17,044,259	66,914	1,216	8,446	\$12,083,897	\$41,810,920		
	1890	6,335	108,705,670	129,447	42,833,332	121,789	2,337	5,321	18,257,998	89,827,785		
Alabama	1880	51	83,620	612	75,658	409	143	50,323	170,802			
	1890	70	742,376	1,041	366,078	1,470	13	158	164,557	802,331		
Arizona	1880	1	2,500	10	4,500	10			2,250	9,000		
	1890	3	1,210	31	2,600	31			700	4,300		
Arkansas	1880	36	41,400	379	54,125	843		36	36,440	120,170		
	1890	57	318,262	785	100,008	700	2	88	107,545	620,734		
California	1880	60	481,050	950	304,860	948	1	1	180,175	681,901		
	1890	64	2,527,673	1,840	889,339	1,835	1	4	621,470	2,266,914		
Colorado	1880	46	362,600	830	267,410	707		33	194,003	605,028		
	1890	89	1,980,422	2,375	1,186,762	2,300	5	61	385,100	2,235,018		
Connecticut	1880	58	455,213	660	183,051	624	9	27	121,522	427,304		
	1890	43	1,184,155	1,240	400,450	1,205	31	13	153,523	863,040		
Dakota	1880	14	25,600	108	33,622	108			16,366	66,685		
a1890	17	133,700	290	68,442	290				24,218	180,425		
Delaware	1880	18	114,400	314	56,316	236		78	36,033	184,110		
b1890	13	250,982	427	143,136	406		21		30,341	268,594		
District of Columbia	1880	19	477,350	721	137,311	601		120	70,725	357,948		
	1890	18	916,383	1,203	483,550	1,214		79	238,310	861,587		
Florida	1880	10	8,850	111	12,808	106		5	0,000	28,050		
b1890	12	130,770	297	60,507	214	1	22		10,805	119,260		
Georgia	1880	81	213,835	1,248	190,733	1,030	14	195	116,797	414,250		
	1890	78	1,179,532	2,344	563,883	2,275	4	65	285,009	1,412,702		
Idaho	1880	2	2,500	11	3,840	11			1,850	0,000		
	1890	5	11,405	38	4,710	38			1,690	9,800		
Illinois	1880	660	2,593,113	6,290	1,410,385	5,672	16	608	1,052,466	3,379,007		
	1890	644	10,670,707	11,209	3,070,760	10,733	57	410	1,495,503	7,956,082		
Indiana	1880	770	1,484,814	4,341	747,009	4,006	6	329	712,701	2,018,198		
	1890	784	3,447,764	6,496	1,482,284	6,217	72	207	514,651	3,142,454		
Iowa	1880	308	542,804	2,434	400,526	2,235	13	186	303,005	1,083,002		
	1890	289	2,114,803	3,021	826,981	2,930	11	80	332,393	1,775,165		
Kansas	1880	108	133,975	1,066	177,311	967	20	70	92,496	364,448		
	1890	93	809,882	1,310	324,536	1,242	6	68	133,397	600,574		
Kentucky	1880	130	346,275	1,460	255,812	1,234	1	225	166,153	573,055		
	1890	109	1,077,601	2,158	574,731	2,007	20	131	234,075	1,206,181		
Louisiana	1880	33	89,425	365	71,576	312	13	40	33,167	143,765		
	1890	27	357,003	591	166,818	567	4	20	65,272	336,495		
Maine	1880	103	317,649	865	120,838	640		16	134,548	340,908		
	1890	127	820,507	1,245	361,005	1,200	40	5	220,002	804,074		
Maryland	1880	96	1,311,108	2,597	598,423	2,262	10	265	323,557	1,205,932		
	1890	75	3,058,409	3,181	945,272	2,943	70	118	333,045	1,985,828		
Massachusetts	1880	138	1,930,500	2,664	578,630	2,604	22	28	502,900	1,620,022		
	1890	139	3,825,818	3,771	1,365,437	3,709	55	7	712,942	2,819,760		
Michigan	1880	187	736,759	1,067	350,745	1,764	45	158	243,556	853,425		
	1890	196	1,950,401	2,824	635,370	2,766	9	49	273,715	1,407,937		
Minnesota	1880	92	324,705	1,041	215,170	959	5	77	127,435	544,675		
	1890	126	1,827,431	2,402	592,104	2,303	9	90	313,408	1,831,339		
Mississippi	1880	56	110,825	737	97,853	621	4	112	45,780	214,370		
	1890	36	246,885	742	150,053	692		56	73,100	339,930		
Missouri	1880	266	1,271,715	3,006	807,675	2,526	9	471	540,374	1,975,325		
	1890	277	6,009,308	5,927	2,260,306	5,532	11	884	1,028,407	4,782,610		
Montana	1880	5	17,500	68	21,400	68			11,400	43,150		
	1890	11	173,050	232	104,342	250		2	53,088	238,610		
Nebraska	1880	88	135,240	675	152,913	598	3	74	103,078	354,293		
b1890	155	2,701,774	2,720	844,850	2,570	5	145	484,918	2,173,632			
Nevada	1880	2	1,200	13	3,974	13			1,245	8,835		
	1890	(e)										
New Hampshire	1880	74	186,545	713	148,291	707	2	4	106,685	851,225		
	1890	66	507,073	1,534	361,297	1,523	10	1	204,330	835,156		
New Jersey	1880	156	3,788,500	5,020	1,760,993	4,620	484	816	1,589,635	4,271,200		
	1890	155	10,569,054	9,420	4,126,180	8,201	810	325	1,877,488	7,001,611		

^a North and South Dakota combined for 1890.^b See note ^d at end of table.^c None reported in 1890.

CLAY PRODUCTS.

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TABLE I.—COMPARATIVE STATEMENT, CLAY PRODUCTS, BY STATES AND TERRITORIES: 1880 AND 1890—Continued.

STATES AND TERRITORIES.	Year.	Number of establis- ments reporting.	Capital.	AVERAGE NUMBER OF EMPLOYÉS AND TOTAL WAGES.					Cost of mate- rials used.	Value of products..		
				Aggregates.		Males above 16 years.	Females above 15 years.	Children.				
				Average number.	Total wages.							
New Mexico.....	1880	1	\$800	8	\$600	8	.....	.....	\$500	\$1,500
	1890	(a)	.....	.....	.....	.....	.....	.....	.....	.....
New York.....	1880	386	4,732,105	8,252	1,058,505	7,429	171	658	1,496,218	5,022,024		
	1890	331	11,196,350	12,582	4,330,575	12,039	284	219	1,058,608	8,806,273		
North Carolina.....	1880	68	55,900	616	50,028	435	3	178	35,257	152,524		
	1890	71	206,780	1,071	154,831	977	1	93	66,063	846,270		
North Dakota (b).....	1890	6	30,095	80	18,495	80	.....	.....	6,505	45,775
Ohio.....	1880	1,010	4,538,083	8,943	2,060,685	7,696	243	1,004	1,843,767	5,760,705		
	1890	1,000	12,139,977	14,174	4,061,675	13,026	632	516	2,336,160	10,860,938		
Oklahoma (c).....	1890	3	2,900	16	6,684	16	.....	.....	1,491	11,500
Oregon.....	1880	23	55,496	187	43,814	184	1	2	19,197	104,240		
	d1890	47	656,151	701	237,773	689	.....	12	66,230	401,648	
Pennsylvania.....	1880	624	5,800,069	9,314	2,359,400	7,845	91	1,378	1,566,110	5,501,322		
	1890	576	15,067,046	15,283	5,510,187	10,965	135	1,183	2,131,164	11,143,668		
Rhode Island.....	1880	3	108,500	207	36,700	207	.....	.....	27,000	98,000
	1890	4	165,475	151	58,221	151	.....	.....	29,900	133,000
South Carolina.....	1880	32	37,000	385	38,103	287	2	96	25,708	97,010		
	1890	44	244,407	821	131,403	766	.....	65	48,315	279,880	
South Dakota (b).....	1890	11	103,605	219	49,047	219	.....	.....	17,623	134,050
Tennessee.....	1880	98	360,254	1,582	252,521	1,248	9	325	141,683	595,379		
	1890	88	1,092,100	2,164	677,206	1,962	8	194	195,882	1,277,307		
Texas.....	1880	121	197,630	1,210	212,020	1,067	8	135	111,824	474,088		
	1890	143	1,130,561	2,173	617,983	2,110	3	60	207,143	1,311,270		
Utah.....	1880	30	125,575	193	36,690	152	.....	41	20,025	90,392	
	d1890	40	270,147	758	232,458	692	.....	66	66,551	421,658	
Vermont.....	1880	28	198,250	252	52,310	244	.....	8	32,735	124,650	
	1890	20	130,915	226	48,475	219	1	6	24,535	118,030		
Virginia.....	1880	90	306,035	1,457	194,227	1,200	.....	248	86,935	425,386	
	1890	98	1,560,787	2,480	610,130	2,335	.....	145	217,502	1,361,438	
Washington.....	1880	3	4,000	18	2,930	18	.....	.....	1,650	7,500
	1890	90	1,211,158	1,910	734,866	1,882	10	18	233,510	1,520,470		
West Virginia.....	1880	53	268,050	504	127,412	440	3	61	40,109	251,410		
	1890	35	289,628	471	144,600	428	3	40	69,049	304,865		
Wisconsin.....	1880	134	656,772	1,493	257,738	1,299	8	186	193,976	708,004		
	1890	153	2,573,733	2,969	748,615	2,874	10	85	409,192	1,785,442		
Wyoming.....	1880	2	1,500	28	5,300	28	.....	.....	1,400	8,500
	1890	7	28,070	31	11,410	31	.....	.....	3,723	25,900
All other states.....	d1890	7	257,485	162	82,351	146	4	12	38,398	182,300		

^a None reported in 1890.^b See Dakota.^c Part of Indian territory in 1880, from which no reports were received.^d Includes states having less than 3 establishments in either branch of the industry, in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Clay and pottery products: Delaware, 2; Florida, 1; Nebraska, 1; Oregon, 1; Utah, 1. Brick and tile: Indian territory, 1.

MANUFACTURING INDUSTRIES.

TABLE 2.—COMPARATIVE STATEMENT, CLAY AND POTTERY PRODUCTS, BY STATES AND TERRITORIES: 1880 AND 1890.

STATES AND TERRITORIES.	Year.	Number of establishments reporting.	Capital.	AVERAGE NUMBER OF EMPLOYÉS AND TOTAL WAGES.				Cost of materials used.	Value of products.		
				Aggregates.		Males above 16 years.	Females above 15 years.				
				Average number.	Total wages.						
The United States	1880	752	\$7,360,323	10,221	\$8,600,727	7,882	948	1,391	\$2,900,063		
	1890	707	26,127,104	20,296	10,138,143	17,670	2,071	555	5,618,401		
Alabama	1880	13	5,095	45	7,261	41	.....	4	3,098	
	1890	11	37,208	62	15,387	51	.....	11	3,803	
Arkansas	1880	4	2,760	4	350	4	.....	.....	440
	1890	9	22,234	76	22,933	56	2	18	7,438		
California	1880	10	103,300	111	94,825	110	1	.....	28,550	
	1890	12	1,018,082	303	260,497	393	.....	.....	276,121
Colorado	1880	(a)	232,640	121	87,249	115	.....	6	88,107	
	1890	6	.....	.....	.....	.....	.....	.....	215,542
Connecticut	1880	10	120,803	119	50,575	113	.....	6	30,500	
	1890	15	212,445	257	143,256	232	17	8	47,593		
Delaware	1880	3	12,000	7	1,100	0	.....	1	2,850	
	b1890	.....	.....	.....	.....	.....	.....	.....	8,500
District of Columbia	1880	3	146,750	25	14,150	25	.....	.....	8,150
	1890	5	173,702	80	40,621	89	.....	.....	29,880
Florida	1880	1	1,000	4	350	2	.....	2	150	
	b1890	.....	.....	.....	.....	.....	.....	.....	850
Georgia	1880	5	1,175	20	1,850	17	.....	3	1,050	
	1890	17	229,269	204	90,011	258	4	2	31,177		
Illinois	1880	44	190,090	393	127,781	358	3	37	90,882		
	1890	40	1,675,108	1,612	753,934	1,432	37	43	420,134		
Indiana	1880	35	70,550	101	30,755	98	2	1	18,535		
	1890	20	260,020	350	105,184	304	55	.....	65,456	
Iowa	1880	28	64,250	183	64,406	172	.....	11	32,042	
	1890	29	311,921	270	110,613	275	4	.....	49,962	
Kansas	1880	5	8,150	20	3,200	19	1	.....	1,561	
	1890	6	21,275	36	11,300	33	.....	3	4,696	
Kentucky	1880	15	44,100	81	22,110	72	.....	9	20,050	
	1890	10	250,043	201	97,886	184	17	.....	48,408	
Louisiana	1880	2	2,000	7	2,050	7	.....	.....	3,100
	1890	5	41,550	51	23,767	51	.....	.....	9,431
Maine	1880	7	37,100	28	14,300	28	.....	.....	11,661
	1890	9	382,852	172	82,767	171	1	.....	87,635	
Maryland	1880	17	142,950	286	120,234	213	10	63	80,273		
	1890	11	497,507	623	203,797	533	60	21	110,560		
Massachusetts	1880	24	262,300	253	113,050	234	13	6	71,025		
	1890	20	811,511	510	274,087	454	49	7	114,355		
Michigan	1880	8	26,500	34	12,900	34	.....	.....	6,078
	1890	11	364,446	208	90,620	201	.....	7	55,362	
Minnesota	1880	5	43,000	31	14,962	31	.....	.....	12,825
	1890	9	243,075	181	89,921	175	2	4	57,512		
Mississippi	1880	2	4,700	28	8,800	28	.....	.....	2,810
	1890	3	50,140	46	24,980	41	.....	5	11,457	
Missouri	1880	26	282,300	260	101,700	255	1	13	152,010		
	1890	45	1,408,592	1,093	553,904	1,074	3	16	372,803		
Nebraska	1880	1	4,500	13	2,724	13	.....	.....	1,000
	b1890	.....	.....	.....	.....	.....	.....	.....	4,815
New Hampshire	1880	7	65,500	71	20,983	65	2	4	16,484		
	1890	4	61,350	36	10,022	28	8	.....	11,872	
New Jersey	1880	40	2,057,200	3,180	1,101,511	2,054	458	668	1,030,508		
	1890	60	5,478,332	4,028	2,596,090	3,036	808	184	2,598,757		
New York	1880	65	808,700	805	344,739	714	142	89	1,366,834		
	1890	56	2,785,120	1,756	901,100	1,484	280	12	5,165,537		
North Carolina	1880	2	1,000	2	100	2	.....	.....	600
	1890	9	3,146	34	6,721	34	.....	.....	2,350
Ohio	1880	185	1,814,555	2,816	946,552	2,169	226	421	1,057,973		
	1890	125	5,927,139	4,873	2,312,510	4,119	619	135	1,813,230		
Pennsylvania	1880	103	771,545	888	282,232	710	85	93	233,361		
	1890	67	2,689,211	1,071	745,795	1,528	105	88	748,169		
Rhode Island	1880	2	8,500	12	4,700	12	.....	.....	3,000
	b1890	.....	.....	.....	.....	.....	.....	.....	2,665
South Carolina	1880	3	6,500	18	2,200	18	.....	1	8,500	
	1890	5	11,975	34	10,165	33	1	16,200		

^a None reported in 1880.^b See note ^a at end of table.

CLAY PRODUCTS.

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TABLE 2.—COMPARATIVE STATEMENT, CLAY AND POTTERY PRODUCTS, BY STATES AND TERRITORIES:
1880 AND 1890—Continued.

STATES AND TERRITORIES.	Year.	Number of establis- hments reporting	Capital.	AVERAGE NUMBER OF EMPLOYÉS AND TOTAL WAGES.					Cost of mate- rials used.	Value of products.		
				Aggregates.		Males above 16 years.	Females above 15 years.	Children.				
				Average number.	Total wages.							
Tennessee.....	1880	8	\$16,900	29	\$6,294	24	2	3	\$2,115	\$12,260		
	1890	10	45,884	74	20,400	59	.....	15	7,085	23,030	
Texas.....	1880	8	14,100	25	8,430	25	.....	.....	6,750	26,270
	1890	19	85,147	133	53,610	131	1	1	18,011	96,580		
Utah.....	1880	2	4,000	5	1,800	5	.....	.....	800	5,000
	a1890	.....	.....	.....	.....	.....	.....	.....	.....	.....
Vermont.....	1880	3	65,000	28	13,700	28	.....	.....	14,000	41,000
	1890	4	53,340	29	13,502	28	1	.....	7,527	29,048	
Virginia.....	1880	15	16,850	32	6,155	29	.....	3	6,515	26,597	
	1890	10	13,170	39	7,919	35	.....	4	2,949	17,840	
Washington.....	1880	1	1,000	2	500	2	.....	.....	500	1,500
	1890	4	152,193	84	50,405	83	1	.....	10,626	139,820	
West Virginia.....	1880	6	25,100	58	16,111	56	2	.....	9,208	32,700	
	1890	8	86,682	68	27,828	60	2	0	12,640	55,372		
Wisconsin.....	1880	15	95,000	98	26,387	94	.....	4	32,576	100,395	
	1890	16	185,340	150	68,820	148	2	.....	35,771	142,977	
All other states.....	a1890	8	268,225	154	85,503	142	4	8	30,786	192,300		

^a Includes states having less than 3 establishments, in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Delaware, 2; Florida, 1; Nebraska, 1; Oregon, 1; Rhode Island, 2; Utah, 1.

MANUFACTURING INDUSTRIES.

TABLE 3.—DETAILED STATEMENT, CLAY AND POTTERY

STATES AND TERRITORIES.	Num- ber of estab- lish- ments report- ing.	Aggregate.	CAPITAL.							
			Value of plant.				Live assets.			
			Total.	Land.	Buildings.	Machinery, tools, and imple- ments.	Total.	Raw materials.	Stock in proc- ess and fin- ished prod- ucts on hand.	
1 The United States.....	707	\$26,127,104	\$15,600,955	\$3,976,737	\$8,709,949	\$4,920,269	\$10,520,149	\$964,768	\$4,843,908	\$4,711,473
2 Alabama	11	37,208	32,330	22,850	4,375	5,105	4,878	385	2,305	2,123
3 Arkansas	9	22,234	16,023	3,978	8,850	3,195	6,211	1,005	3,340	1,366
4 California	12	1,048,682	747,220	130,400	314,050	302,770	301,462	19,635	142,984	138,843
5 Colorado	6	232,610	122,736	47,863	33,121	41,732	109,904	10,825	52,150	46,920
6 Connecticut	15	212,445	107,250	19,100	47,000	41,150	105,195	8,180	54,050	42,985
7 District of Columbia	5	173,702	110,646	33,625	30,253	46,768	63,056	1,150	24,500	37,406
8 Georgia	17	299,269	168,350	33,290	48,985	86,075	60,910	3,139	24,200	33,520
9 Illinois	40	1,075,108	997,377	154,140	353,537	309,700	707,731	62,383	322,501	382,757
10 Indiana	20	266,020	147,150	38,950	73,500	34,700	118,870	11,395	46,150	61,325
11 Iowa	29	311,921	221,800	77,025	80,200	64,635	90,061	8,274	48,506	33,281
12 Kansas	6	21,275	16,180	2,900	8,450	4,830	5,095	730	2,700	1,575
13 Kentucky	10	250,643	162,611	32,560	39,000	90,451	87,732	11,336	29,932	46,464
14 Louisiana	5	41,550	31,900	10,000	7,500	14,300	9,750	1,050	6,000	2,700
15 Maine	9	382,852	163,600	62,500	48,600	52,500	219,252	42,920	102,972	73,360
16 Maryland	11	497,507	287,000	101,800	82,750	102,450	210,507	10,490	38,858	107,150
17 Massachusetts	29	811,541	414,740	68,200	177,800	168,740	396,801	54,323	191,575	160,903
18 Michigan	11	364,446	184,425	35,950	45,150	103,325	180,021	6,745	88,626	84,650
19 Minnesota	9	243,075	141,400	54,600	40,000	45,900	101,675	6,225	55,550	30,900
20 Mississippi	8	50,140	33,380	10,850	12,000	10,530	16,700	260	10,700	5,800
21 Missouri	45	1,408,592	871,135	247,770	307,457	315,008	537,457	24,701	230,310	273,497
22 New Hampshire	4	61,350	25,750	4,500	10,700	10,550	35,600	2,200	20,550	12,850
23 New Jersey	60	5,478,332	8,128,183	766,533	1,525,553	836,097	2,350,140	256,919	1,123,910	969,290
24 New York	56	2,785,120	1,600,920	441,350	727,800	431,770	1,184,200	146,402	507,498	470,210
25 North Carolina	9	3,146	2,080	430	1,060	590	1,066	95	876	95
26 Ohio	125	5,927,139	3,673,765	885,677	1,720,110	1,087,978	2,253,374	144,098	905,507	1,143,709
27 Pennsylvania	67	2,689,211	1,671,374	455,411	753,066	462,897	1,017,837	80,175	497,023	440,030
28 South Carolina	5	11,975	9,780	5,000	3,200	980	2,195	360	1,525	310
29 Tennessee	10	45,884	29,523	5,180	8,840	15,503	16,361	1,835	9,210	5,316
30 Texas	10	85,147	68,807	21,627	29,125	18,655	16,346	2,845	11,020	2,475
31 Vermont	4	53,340	38,000	13,750	18,700	5,550	15,340	1,100	8,000	5,040
32 Virginia	10	18,170	7,075	1,950	3,200	1,925	6,005	560	4,835	1,200
33 Washington	4	152,193	116,923	52,100	46,114	18,649	35,270	3,750	22,050	9,470
34 West Virginia	8	86,682	62,205	38,200	15,700	8,305	24,477	575	15,400	8,493
35 Wisconsin	16	185,340	94,952	31,708	26,508	30,651	90,988	5,803	26,577	58,008
36 All other states (a)	8	268,225	190,105	84,200	55,900	50,005	78,120	23,800	37,000	17,320

^a Includes states having less than 3 establishments, in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Delaware, 2; Florida, 1; Oregon, 1; Rhode Island, 2; Utah, 1.

CLAY PRODUCTS.

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PRODUCTS, BY STATES AND TERRITORIES: 1890.

MISCELLANEOUS EXPENSES.							AVERAGE NUMBER OF EMPLOYEES AND TOTAL WAGES.							
Total.	Rent paid for tenancy.	Taxes.	Insurance.	Repairs, ordinary, of build- ings and machinery.	Interest paid on cash used in the busi- ness.	All sun- dries not elsewhere reported.	Aggregates.		Officers, firm members, and clerks.					
							Average number.	Total wages.	Males above 16 years.	Females above 15 years.	Number.	Wages.	Number.	Wages.
\$2,003,007	\$82,156	\$127,062	\$114,231	\$393,724	\$188,051	\$1,086,883	20,206	\$10,188,143	1,268	\$1,247,513	48	\$21,508	1	
833	100	70	97	194	215	157	62	15,387	6	2,693	.....	.....	2	
1,585	120	133	55	695	125	457	76	22,330	10	4,848	.....	.....	3	
153,469	3,600	3,865	5,890	12,656	4,785	122,667	393	260,407	31	40,000	.....	.....	4	
10,215	8,000	1,064	435	3,748	1,168	800	121	87,249	15	24,960	.....	.....	5	
28,815	1,690	682	1,088	3,645	1,530	20,730	257	143,256	28	31,010	.....	.....	6	
6,303	150	363	359	2,551	480	2,400	80	40,621	1	900	.....	.....	7	
5,789	720	997	905	875	958	1,284	264	90,011	31	20,540	.....	.....	8	
143,204	13,670	5,936	8,395	34,493	9,758	70,982	1,512	753,934	67	64,221	2	916	9	
18,598	950	2,420	2,089	5,440	1,950	5,740	350	165,164	32	30,737	.....	.....	10	
24,128	340	1,064	1,196	11,757	2,132	7,644	279	110,613	34	23,202	.....	.....	11	
1,390	380	130	133	350	8	380	36	11,390	6	3,204	.....	.....	12	
13,528	780	1,049	703	4,370	578	6,048	201	97,886	19	16,162	2	615	13	
2,405	120	.....	635	625	.....	1,025	51	28,767	8	5,844	.....	.....	14	
26,727	602	1,050	1,445	8,340	1,500	15,190	172	82,767	14	12,520	1	300	15	
8,079	870	2,446	1,983	1,550	270	1,960	623	263,797	17	17,014	1	210	16	
42,489	6,750	7,560	5,892	6,062	5,470	11,255	510	274,987	43	43,540	3	1,540	17	
22,374	1,180	1,850	1,097	4,200	4,200	9,808	208	96,620	18	20,270	.....	.....	18	
21,506	3,700	845	636	3,240	3,090	9,155	181	80,921	16	12,200	.....	.....	19	
511	.....	18	335	.....	.....	160	46	24,980	8	7,000	.....	.....	20	
165,071	14,480	6,749	6,884	34,888	8,856	93,864	1,093	553,004	80	90,663	2	1,303	21	
5,072	.....	337	260	165	.....	5,210	36	19,022	5	2,624	.....	.....	22	
407,998	3,150	20,078	21,712	66,840	69,024	277,500	4,028	2,506,699	104	237,922	9	4,394	23	
107,503	21,500	15,018	12,131	27,016	17,722	74,116	1,756	901,160	114	114,246	9	3,802	24	
57	.....	14	.....	35	.....	8	34	6,721	7	2,899	.....	.....	25	
450,338	4,605	31,024	26,822	115,143	34,490	247,240	4,873	2,312,510	254	250,902	13	5,906	26	
150,104	6,444	9,698	10,727	30,644	12,704	86,887	1,671	745,795	120	103,785	2	1,050	27	
319	.....	98	36	185	.....	.....	34	10,165	5	2,940	.....	.....	28	
1,582	.....	209	175	412	606	180	74	20,400	7	4,476	.....	.....	29	
2,854	.....	539	105	1,025	100	1,025	133	58,610	16	10,243	1	140	30	
2,858	.....	390	320	138	336	1,060	29	13,502	3	1,350	1	400	31	
904	430	49	.....	105	.....	260	39	7,010	8	2,694	.....	.....	32	
5,317	.....	607	305	1,000	2,700	105	84	50,405	10	9,300	.....	.....	33	
2,750	273	358	373	525	200	1,030	68	27,828	7	4,804	.....	.....	34	
12,034	1,882	1,036	595	1,723	1,107	6,291	150	68,820	19	14,444	.....	.....	35	
17,004	700	606	893	10,410	480	4,605	154	85,503	15	12,607	2	1,020	36	

MANUFACTURING INDUSTRIES.

TABLE 3.—DETAILED STATEMENT, CLAY AND POTTERY

STATES AND TERRITORIES.	AVERAGE NUMBER OF EMPLOYÉS AND TOTAL WAGES—continued.											
	Operatives, skilled and unskilled.								Pieceworkers.			
	Males above 16 years.		Females above 15 years.		Children.		Males above 16 years.		Females above 15 years.		Children.	
	Number.	Wages.	Number.	Wages.	Number.	Wages.	Number.	Wages.	Number.	Wages.	Number.	Wages.
1 The United States...	13,950	\$0,808,408	1,532	\$346,288	405	\$50,982	2,452	\$1,471,156	491	\$152,554	150	\$30,644
2 Alabama.....	40	10,880			11	618	5	1,196				
3 Arkansas.....	42	13,625	2	470	16	1,700	4	1,474			2	150
4 California.....	355	215,777					7	4,720				
5 Colorado.....	99	60,089			6	1,300	1	900				
6 Connecticut.....	172	84,016	17	4,510	8	1,636	32	21,484				
7 District of Columbia.....	86	38,521					2	1,200				
8 Georgia.....	217	64,059	4	504	2	40	10	4,868				
9 Illinois.....	1,275	623,545	35	5,720	43	5,853	90	53,679				
10 Indiana.....	245	110,994	41	8,058			27	13,141	14	2,184		
11 Iowa.....	218	84,173					23	10,238	4	2,000		
12 Kansas.....	20	5,844			3	102	7	2,060				
13 Kentucky.....	142	61,277	15	2,270			23	17,562				
14 Louisiana.....	42	17,347					1	576				
15 Maine.....	151	65,538					6	4,400				
16 Maryland.....	401	214,397	65	15,000	20	2,130	25	14,156	3	846	1	104
17 Massachusetts.....	864	193,007	43	10,985	7	950	47	24,250	3	715		
18 Michigan.....	172	69,376			7	1,124	11	5,850				
19 Minnesota.....	123	50,509	2	480	4	600	36	20,132				
20 Mississippi.....	32	16,600			5	600	1	780				
21 Missouri.....	654	436,321	1	200	15	3,519	40	21,740			1	150
22 New Hampshire.....	17	8,022	8	3,276			6	4,500				
23 New Jersey.....	2,731	1,019,255	579	131,606	96	16,398	711	505,740	220	66,984	88	14,400
24 New York.....	1,223	626,916	176	42,116	12	1,496	147	83,401	75	29,183		
25 North Carolina.....	23	3,422					4	400				
26 Ohio.....	2,835	1,301,373	436	98,319	78	13,756	1,030	576,334	170	50,142	57	15,773
27 Pennsylvania.....	1,397	585,376	103	20,836	37	3,704	71	30,094			1	50
28 South Carolina.....	27	6,750			1	75	1	400				
29 Tennessee.....	48	11,624			15	1,700	4	2,600				
30 Texas.....	85	25,087			1	142	30	17,398				
31 Vermont.....	18	7,512					7	4,240				
32 Virginia.....	21	8,000			4	225	6	1,100				
33 Washington.....	73	40,745	1	360								
34 West Virginia.....	43	16,147			6	604	10	5,713	2	500		
35 Wisconsin.....	109	44,338	2	828			20	9,210				
36 All other states.....	120	64,900	2	750	8	1,500	7	4,720				

CLAY PRODUCTS.

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PRODUCTS, BY STATES AND TERRITORIES: 1890—Continued.

Aggregate cost.	MATERIALS USED.																
	Clay.																
	Total.		China clay.				Ball clay.				Sagger clay.		All other clay and cement.				
			Domestic.		Foreign.		Domestic.		Foreign.								
	Tons.	Cost.	Tons.	Cost.	Tons.	Cost.	Tons.	Cost.	Tons.	Cost.	Tons.	Cost.	Tons.	Cost.			
\$5,618,401	1,206,878	\$2,083,421	27,632	\$305,755	4,096	\$58,188	41,477	\$137,724	3,388	\$40,570	25,508	\$70,458	1,104,827	\$1,461,720	1		
8,803	971	954	6	25			770	576					195	353	2		
7,438	8,303	2,740					350	350					7,953	2,300	3		
276,121	42,320	94,839					3,700	1,450					38,620	93,389	4		
88,167	26,875	63,580											26,875	63,580	5		
47,593	2,980	22,740											2,939	22,740	6		
29,880	23,220	12,700											23,220	12,700	7		
31,177	4,642	11,066											4,517	10,887	8		
426,184	108,526	206,721	8,140	18,800	400	5,000	4,593	8,327			5	10	100,388	174,584	9		
65,456	6,517	15,731	186	2,117	12	150	390	1,666	1	15	688	2,003	4,240	9,780	10		
49,902	13,444	17,932			90	1,800	412	701					12,942	14,881	11		
4,696	802	1,799											502	1,079	12		
48,498	11,502	26,493	600	1,200									10,650	24,601	13		
9,431	2,450	4,650											2,450	4,650	14		
87,035	21,240	53,095											21,240	53,095	15		
110,566	77,350	57,634	880	7,080	75	945	660	8,075	87	801	440	1,120	75,237	44,013	16		
114,355	24,007	40,845	605	3,440	15	300	201	1,899	6	91	135	657	22,985	34,458	17		
55,362	15,751	12,080						66	200				15,685	12,880	18		
57,512	21,747	31,786						82	136				21,715	31,650	19		
11,457	2,000	4,250											2,000	4,250	20		
318,781	155,502	130,528	369	707			611	685					250	477	154,263	128,560	21
11,872	680	3,511	20	800	30	600	20	120	80	450	20	120	560	1,921	22		
1,366,834	78,241	338,908	10,520	129,864	1,260	16,300	8,030	47,049	662	10,501	12,845	26,841	44,624	108,443	23		
537,573	108,300	234,016	1,631	10,884	1,353	19,640	904	4,886			1,637	8,709	102,784	100,397	24		
2,850	1,814	865						1,724	355				90	510	25		
1,913,230	813,140	420,806	8,984	128,598	771	12,072	6,705	32,447	2,243	28,212	5,964	28,864	288,383	195,612	26		
300,164	102,048	201,691	631	8,155	90	1,375	8,400	26,718	20	500	8,515	10,657	89,383	164,280	27		
2,065	1,150	1,450											1,150	1,450	28		
7,085	2,145	3,216						1,530	2,295				615	921	29		
18,011	2,634	5,847						1,082	2,200				1,642	3,587	30		
7,527	600	3,038						150	788				450	2,860	31		
2,949	530	727						100	100				490	627	32		
10,526	550	5,712											550	5,712	33		
12,040	4,200	6,825											4,200	6,825	34		
86,771	10,853	22,104						100	75				10,753	22,020	35		
80,786	10,207	21,943						110	65				10,097	21,878	36		

MANUFACTURING INDUSTRIES.

TABLE 3.—DETAILED STATEMENT, CLAY AND POTTERY

STATES AND TERRITORIES.	MATERIALS USED—continued.									
	Fuel.									
	Total cost.	Coal.		Wood.		All other fuel. (Cost.)	Total cost.	Packing materials.		
		Tons.	Cost.	Cords.	Cost.			Straw, etc. (Cost.)	Crates and hogsheads. (Cost.)	Barrels and boxes. (Cost.)
1 The United States	\$1,799,146	604,859	\$1,404,256	95,811	\$250,244	\$144,646	\$334,775	\$78,125	\$209,485	\$47,165
2 Alabama	2,593	180	305	1,930	2,288	.....	.....	.....	.....	.....
3 Arkansas	3,962	.....	.....	2,135	3,962	.....	.....	.....	.....	.....
4 California	169,327	12,264	101,144	14,440	58,183	.....	240	20	100	120
5 Colorado	6,810	1,998	6,006	40	204	.....	.....	.....	.....	.....
6 Connecticut	10,814	2,140	9,649	200	955	210	4,480	1,700	2,430	350
7 District of Columbia	13,251	4,712	12,201	350	1,050	.....	50	30	.....	20
8 Georgia	17,431	6,225	15,214	1,641	2,217	.....	1,140	.....	1,000	140
9 Illinois	160,145	77,079	143,204	6,085	10,836	105	1,765	748	681	336
10 Indiana	28,511	4,815	11,360	2,445	5,361	11,800	8,223	144	2,579	600
11 Iowa	20,877	11,098	23,330	2,433	5,213	1,325	42	32	5	5
12 Kansas	2,289	415	1,460	273	595	225	12	12	.....	.....
13 Kentucky	15,076	7,530	13,410	1,000	1,065	.....	201	17	115	00
14 Louisiana	2,368	.....	.....	909	2,258	112	.....	.....	.....	.....
15 Maine	31,754	8,884	28,684	1,420	3,045	25	.....	.....	.....	.....
16 Maryland	28,274	8,385	25,275	743	2,990	.....	4,329	744	3,100	485
17 Massachusetts	93,265	6,262	28,420	2,365	9,926	.....	2,800	800	1,450	640
18 Michigan	86,991	13,548	34,205	1,180	2,156	630	860	100	690	70
19 Minnesota	19,429	3,545	10,915	5,583	8,414	100	.....	.....	.....	.....
20 Mississippi	6,700	2,000	2,700	1,900	4,000	.....	.....	.....	.....	.....
21 Missouri	152,066	92,890	139,341	7,287	12,725	.....	74	51	12	11
22 New Hampshire	3,392	422	2,482	820	810	100	1,270	120	150	1,000
23 New Jersey	310,823	79,458	306,118	3,522	13,705	.....	177,702	43,027	108,146	25,520
24 New York	155,403	37,294	137,931	5,760	15,132	840	7,342	872	6,122	348
25 North Carolina	1,445	.....	.....	1,490	1,445	.....	20	12	5	3
26 Ohio	372,094	185,442	255,233	6,397	10,756	107,005	110,729	24,795	70,384	15,550
27 Pennsylvania	121,703	20,772	73,304	6,633	26,219	22,270	17,487	4,667	10,886	1,934
28 South Carolina	930	.....	.....	925	930	.....	.....	.....	.....	.....
29 Tennessee	3,726	1,040	1,920	1,517	1,806	.....	118	48	70	.....
30 Texas	10,583	.....	.....	5,414	10,583	.....	21	6	.....	15
31 Vermont	2,380	20	120	515	2,260	.....	720	160	560	.....
32 Virginia	1,663	10	10	1,134	1,844	800	30	.....	.....	30
33 Washington	12,505	.....	.....	4,201	12,505	.....	.....	.....	.....	.....
34 West Virginia	5,846	2,595	5,568	160	278	.....	.....	.....	.....	.....
35 Wisconsin	6,135	1,405	4,337	593	1,699	99
36 All other states	16,496	2,831	9,774	3,462	6,722	30	20	10

CLAY PRODUCTS.

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PRODUCTS, BY STATES AND TERRITORIES: 1890--Continued.

MANUFACTURING INDUSTRIES.

TABLE 3.—DETAILED STATEMENT, CLAY AND POTTERY

STATES AND TERRITORIES.	MATERIALS USED—continued.												
	Miscellaneous—Continued.												
	Whiting.		Salt.		Liquid and coin gold. (Cost.)	Color. (Cost.)	Copper and steel plates. (Cost.)	Sand.		Albany dip. (Cost.)	Mill supplies. (Cost.)	Rent paid for power and heat. (Cost.)	All other ma- terials. (Cost.)
	Pounds.	Cost.	Tons.	Cost.				Tons.	Cost.				
1 The United States	1,293,365	\$16,026	3,098	\$10,417	\$96,480	\$51,220	\$14,222	67,107	\$64,858	\$13,532	\$67,460	\$3,300	\$359,002
2 Alabama	12,000	120	5	64		55		2	1	25	30		37
3 Arkansas			317	2,170				3,200	3,200	302	8,000		144
4 California			3	54				10,300	5,300	23			6,326
5 Colorado			6	205		500		1,005	1,231	65	125		8,400
6 Connecticut											460		2,600
7 District of Columbia			72	502				5,240	2,020		620		650
8 Georgia	9,560	117	80	240				580	170	20	2		587
9 Illinois	4,200	312	242	1,597	1,000	802		2,037	2,784	1,214	16,953		24,361
10 Indiana	6,970	57	15	77			1	61	82	511	125		10,237
11 Iowa			14	67		21		514	347	766	30		1,263
12 Kansas			3	18		5		133	173	220			152
13 Kentucky	300	3	2	15		150		1,507	1,840	150	300		2,850
14 Louisiana			2	20				150	335	30	25		2,003
15 Maine			23	68				885	1,855	73		90	1,000
16 Maryland	12,500	197	6	26	7,887	1,100	950	305	335	110	550		2,048
17 Massachusetts	6,750	75	4	166		1,080	4,450	3,840	2,827	3,543	600	1,000	8,806
18 Michigan			30	90				3,300	3,044			120	1,087
19 Minnesota			80	480		10	20	5,230	2,640	400			2,597
20 Mississippi									250		107		150
21 Missouri		20	30	560	2,580		60	1,691	2,195	1,082	1,080	500	28,293
22 New Hampshire	600	12				1,000	175	500	210	210			25
23 New Jersey	884,626	10,772	127	455	54,793	25,843	3,303	1,665	1,484	967	9,351	600	70,022
24 New York	8,900	120	150	884	1,800	800	300	7,776	14,108	485	1,743	260	83,788
25 North Carolina													5
26 Ohio	302,939	3,336	1,060	5,040	29,010	19,602	4,710	5,060	7,195	845	24,680		75,168
27 Pennsylvania	44,000	875	230	774	770	907		8,179	2,475	749	2,720	240	24,074
28 South Carolina								160	160		25		100
29 Tennessee													25
30 Texas			6	52				610	610	343			255
31 Vermont								200	175				614
32 Virginia			4	80		100				53			35
33 Washington						10	6	2	1,200	1,800			100
34 West Virginia			0	98				6,821	6,743	130	60	40	844
35 Wisconsin			91	645				26	13	486	50		456
36 All other states													8

a Includes sanitary or plumbers' earthenware to the value of \$1,214,400 in the state of New Jersey.

CLAY PRODUCTS.

521

PRODUCTS, BY STATES AND TERRITORIES: 1890—Continued.

Aggregate.	VALUE OF PRODUCTS.							China and fancy ware.			
	Porcelain and earthenware.							China and fancy ware.			
	Total.	Stone porcelain.	White granite.	C. C or cream colored.	Rockingham.	Yellow.	All other earthenware. (a)	Total.	China (both hard and soft biscuit) vitrified and vitreous.	Decorated ware.	Art pottery and porcelain and ornamental tiling.
\$22,057,000	\$6,183,152	\$669,107	\$1,670,579	\$1,226,161	\$207,751	\$231,802	\$2,171,752	\$3,542,831	\$400,334	\$2,125,320	\$657,168
23,881	3,998	281	.....	.....	.....	1,576	2,141	2,116	.....	172	1,944
35,840	1,144	.....	.....	.....	.....	.....	1,144	.....	.....	.....	2
805,260	9,600	.....	.....	.....	.....	.....	9,600	200	.....	.....	3
215,542	4,500	.....	.....	.....	.....	.....	4,500	.....	.....	.....	4
287,840	61,200	.....	.....	45,000	.....	.....	16,200	80,000	.....	80,000	5
114,637	9,000	.....	.....	.....	.....	.....	9,000	.....	.....	.....	6
211,250	16,270	14,000	.....	.....	868	1,000	102	4,000	.....	4,000	7
1,550,590	34,105	18,320	.....	.....	.....	5,000	15,785	156,000	156,000	156,000	8
313,421	17,020	.....	.....	.....	.....	500	11,520	1,600	1,000	600	9
237,275	13,100	10,000	.....	.....	.....	.....	3,100	1,200	1,200	1,200	10
23,117	10,915	10,025	.....	.....	.....	.....	290	.....	.....	.....	11
194,678	48,400	16,900	.....	.....	12,700	14,500	4,300	.....	.....	.....	12
45,370	32,570	.....	.....	.....	.....	.....	32,570	.....	.....	.....	13
292,314	6,300	.....	.....	.....	.....	.....	6,300	.....	.....	.....	14
504,225	170,508	2,400	40,500	111,000	4,000	4,080	8,528	115,800	300	115,250	250
505,854	186,200	30,000	.....	23,500	.....	.....	132,700	63,500	28,500	35,000	15
228,352	31,700	.....	.....	.....	.....	.....	31,700	.....	.....	.....	16
214,600	16,250	250	.....	.....	.....	.....	16,000	5,300	.....	5,300	17
44,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	18
1,278,713	27,076	1,600	.....	.....	.....	8,940	22,130	3,000	.....	1,000	2,000
45,300	3,000	.....	.....	.....	.....	.....	3,000	35,000	.....	.....	21
5,165,537	2,662,314	876,021	526,311	418,733	25,000	72,000	1,245,049	1,859,754	425,083	1,070,245	363,826
2,122,744	231,942	1,650	43,508	15,729	.....	.....	170,995	168,751	83,851	20,400	115,000
13,120	3,520	2,780	.....	.....	.....	.....	740	.....	.....	.....	22
5,047,501	2,071,291	105,280	1,002,843	571,990	150,547	118,752	116,470	899,472	.....	564,824	334,048
1,739,953	416,671	79,000	63,357	85,800	10,036	9,600	218,878	144,577	.....	84,577	60,000
14,291	9,800	.....	.....	.....	.....	.....	9,800	.....	.....	.....	27
33,030	13,400	.....	.....	.....	.....	.....	13,400	.....	.....	.....	28
96,580	34,810	.....	.....	.....	.....	.....	34,810	.....	.....	.....	29
29,048	1,248	.....	.....	.....	.....	1,248	.....	.....	.....	.....	30
17,840	1,900	.....	.....	.....	.....	.....	1,900	.....	.....	.....	31
139,829	2,850	.....	.....	.....	.....	.....	2,850	.....	.....	.....	32
55,972	7,300	.....	.....	.....	.....	.....	7,300	.....	.....	.....	33
142,977	19,150	.....	.....	.....	.....	4,600	13,130	2,561	2,561	2,561	34
192,300	9,500	.....	.....	.....	.....	4,600	4,900	.....	.....	.....	35

MANUFACTURING INDUSTRIES.

TABLE 3.—DETAILED STATEMENT, CLAY AND POTTERY

STATES AND TERRITORIES.	VALUE OF PRODUCTS—continued.								
	Terra cotta.								
	Total.	Chimney tops.	Chimney flues.	Lumber.	Brick.		Hollow brick and fire proofing.	Electric conduits.	Architectural and ornamental work.
					Number of 1,000.	Value.			
1 The United States.....	\$2,244,790	\$101,208	\$68,184	\$204,700	11,631	\$187,020	\$198,050	\$53,500	\$1,431,228
2 Alabama.....									
3 Arkansas.....									
4 California.....	157,900	6,100	6,800		300	10,500			134,500
5 Colorado.....									
6 Connecticut.....	2,700	2,000			35	500			200
7 District of Columbia.....	20,882				126	882		20,000	
8 Georgia.....	40,000								40,000
9 Illinois.....	443,600	3,000			278	5,000	60,000		375,000
10 Indiana.....	120,000			60,000	1,000	5,000			55,000
11 Iowa.....	16,780	200		4,700	1,530	10,830			50
12 Kansas.....	210				30	210			
13 Kentucky.....	10,000	2,500	7,500						
14 Louisiana.....									
15 Maine.....	25,100				600	25,000			100
16 Maryland.....	153,000	3,000			100	20,000			130,000
17 Massachusetts.....	40,000			40,000					
18 Michigan.....	5,612	5,112	500						
19 Minnesota.....	54,000				1,800	86,000	18,000		
20 Mississippi.....									
21 Missouri.....	175,417	14,200	46,384		30	6,840			107,983
22 New Hampshire.....									
23 New Jersey.....	88,302	21,177			3,500	40,875			26,250
24 New York.....	539,187	542		100,000	1,300	13,000	45,000		380,645
25 North Carolina.....									
26 Ohio.....	157,424	27,087			958	12,447	29,800	33,500	53,690
27 Pennsylvania.....	179,010	8,010			40	800	45,250		124,650
28 South Carolina.....	36				4	36			
29 Tennessee.....									
30 Texas.....	4,900	1,750							3,150
31 Vermont.....									
32 Virginia.....									
33 Washington.....	10,060	3,660	7,000						
34 West Virginia.....									
35 Wisconsin.....	120	120							
36 All other states	350	350							

^a Includes items as follows: porcelain doorknobs, \$100,524; New York, \$97,524; Ohio, \$3,000. Mineral doorknobs, Ohio, \$23,000. Electric insulators and trimmings, \$52,348; New York, \$27,348; Ohio, \$25,000. Hardware trimmings, \$90,635; Massachusetts, \$8,201; New Jersey, \$14,500; New York, \$72,034.

CLAY PRODUCTS.

523

PRODUCTS, BY STATES AND TERRITORIES: 1890—Continued.

VALUE OF PRODUCTS—continued.															
Fire clay.							Stoneware.			Porcelain and special ware. (a)	Tile.	Sewer pipe.	Saggers' pins, stilts, spars, and ground spar and flint.	All other products not elsewhere specified.	
Total.	Gas retorts.	Glass retorts.	Fire brick.		Furnace fittings.	Stove linings and similar products.	Total.	Stoneware.	Stone fancy goods.	Porcelain and special ware. (a)	Tile.	Sewer pipe.	Saggers' pins, stilts, spars, and ground spar and flint.	All other products not elsewhere specified.	
			Number of 1,000.	Value.											
\$1,315,440	\$24,408	\$312,343	28,145	\$600,206	\$161,400	\$151,023	\$2,056,463	\$1,900,468	\$57,000	\$266,507	\$795,958	\$5,107,212	\$290,939	\$254,380 1	
100			5	100			17,167	16,667	500					2	
840			18	940			33,125	33,125		1,200	40			3	
63,750			2,495	63,750			2,460	2,460			643,350		18,000	4	
127,490			915	20,100	107,390		15,787	15,787			62,765		5,000	5	
							25,500	25,200	300		70,540		27,900	6	
91			7	91			3,500	3,500			80,164		1,000	7	
25,500			2,000	25,500			21,800	21,800			103,630	50	50	8	
62,278	1,008		2,313	39,925		21,345	224,886	224,886		310,020	318,580	7,121	9		
							40,850	40,800	50	114,951	10,000		10		
2,800			110	2,800			132,134	132,134		1,051	1,051	92,545	9,165	11	
2,080			190	2,980			8,600	8,540	150		322			12	
							21,400	19,100	2,300	58,778	55,000		1,000	13	
12,800				12,800										14	
75,000			500	75,000			44,000	41,500	2,500	8,000	138,914			15	
0,100			70	2,100			12,167	12,167		14,000	29,500		150	16	
42,953			395	19,075		23,878	67,500	67,000	500	3,201	2,000	52,000	14,000	34,000	
3,200			230	3,200						65,000	122,840		28,800	18	
							110,000	100,000	10,000				250	19	
							44,000	44,000						20	
266,227	12,000	28,576	9,643	191,572	94,079		149,713	149,713		123,660	533,000			20	21
											7,300			22	
25,480			1,000	25,480			22,289	17,289	5,000	14,500	5,655	170,693	235,044	75,500	
212,755	11,400	17,450	1,173	93,405		90,500	185,293	185,293		197,806	26,745	549,265	5,000	0,000	
							9,600	9,600						24	
							487,391	458,501	28,800	51,000	18,700	1,190,100	36,295	14,340	
117,488			78,750	5,241		38,738								25	
250,517		187,507	1,430	55,250	7,200	500	200,950	200,950			20,650	485,407		41,571	
1,600			100	1,600			1,875	1,875			980			27	
3,400			250	2,600		800	15,780	16,780			150			28	
7,500			50	2,500		5,000	45,720	45,620	100		500	1,800	1,350	30	
							22,500	22,500			5,300			31	
														32	
600			10	600			14,240	10,240	4,000		1,300			400	
							720	720		17,976	107,023			33	
							11,572	11,572		500	36,000			34	
							20,354	20,354	2,500		14,800	75,926		9,000	
2,000						2,000	25,500	25,200	300			152,750	2,200	35	

MANUFACTURING INDUSTRIES.

TABLE 4.—CLASSIFICATION OF EMPLOYÉS AND WAGES AND AVERAGE NUMBER OF EMPLOYÉS AT THE

STATES AND TERRITORIES.	Number of establishments reporting.	AVERAGE NUMBER OF EMPLOYÉS IN EACH CLASS AND AVERAGE WEEKLY EARNINGS.														
		Aggregates.		Officers or firm members actively engaged in the industry or in supervision.						Clerks.						
				Males above 16 years.			Females above 15 years.			Males above 16 years.		Females above 15 years.				
		Average number.	Total wages.	Number.	Average weekly earnings per employé.	Total wages.	Number.	Average weekly earnings per employé.	Total wages.	Number.	Average weekly earnings per employé.	Total wages.	Total wages.			
1	The United States ...	707	20,296	\$10,188,143	804	\$22.98	\$868,493	8	\$12.36	\$3,856	464	\$10.80	\$379,620	40	\$8.92	\$17,742
2	Alabama	11	62	15,387	6	13.51	2,693									
3	Arkansas	9	76	22,333	9	12.88	4,688				1	4.10	160			
4	California	12	393	260,497	25	29.16	35,130				6	17.29	4,870			
5	Colorado	6	121	87,249	10	43.17	22,260				5	10.56	2,700			
6	Connecticut	15	257	143,258	17	23.56	19,500				11	22.00	12,110			
7	District of Columbia	5	89	40,021							1	23.07	900			
8	Georgia	17	264	90,011	26	14.80	17,960				5	11.45	2,680			
9	Illinois	40	1,512	753,984	89	25.15	47,421	2	8.81	916	28	12.68	16,800			
10	Indiana	20	359	105,104	23	23.21	23,532				9	16.41	7,255			
11	Iowa	29	279	119,613	25	17.32	17,942				9	12.64	5,260			
12	Kansas	6	36	11,390	6	13.57	3,294									
13	Kentucky	10	201	97,886	13	20.97	12,862	1	12.12	315	6	12.53	3,800	1	5.77	300
14	Louisiana	5	51	23,707	8	14.05	5,844									
15	Maine	9	172	82,767	12	23.89	11,170				2	12.98	1,350	1	5.77	300
16	Maryland	11	623	263,797	9	23.08	10,912				8	14.67	6,102	1	4.04	210
17	Massachusetts	29	510	274,987	27	19.81	26,780				16	20.46	16,700	8	9.87	1,540
18	Michigan	11	208	96,620	12	27.20	18,870				6	14.10	4,400			
19	Minnesota	9	181	89,921	11	18.33	8,100				5	15.77	4,100			
20	Mississippi	3	46	24,980	8	18.57	7,000									
21	Missouri	45	1,093	553,904	45	28.54	50,741	1	15.00	585	35	17.71	80,922	1	13.85	720
22	New Hampshire	4	36	19,022	5	13.76	2,624									
23	New Jersey	60	4,628	2,506,699	87	33.52	142,200				107	18.49	94,722	9	9.75	4,304
24	New York	56	1,750	901,160	60	23.80	78,859				48	15.03	35,357	9	8.12	3,802
25	North Carolina	0	34	6,721	4	12.14	2,410				3	5.04	480			
26	Ohio	125	4,873	2,312,510	150	21.42	160,371	2	20.51	1,600	95	10.73	90,531	11	8.35	4,306
27	Pennsylvania	67	1,071	745,795	82	20.34	77,496	1	6.29	300	38	13.82	26,280	1	17.31	750
28	South Carolina	5	34	10,165	4	13.41	2,440				1	9.62	500			
29	Tennessee	10	74	20,400	6	18.44	4,076				1	9.23	400			
30	Texas	19	133	53,610	12	14.80	8,143	1	8.08	140	4	11.01	2,100			
31	Vermont	4	20	13,502	3	11.98	1,850							1	9.23	400
32	Virginia	10	30	7,910	6	10.80	2,434				2	5.00	260			
33	Washington	4	84	50,405	8	21.63	7,500				2	17.31	1,800			
34	West Virginia	8	68	27,828	6	13.09	4,084				1	13.85	720			
35	Wisconsin	16	150	68,820	15	17.16	12,124				4	11.15	2,920			
36	All other states (a)	8	154	85,503	10	18.02	9,135				5	13.35	3,472	2	9.81	1,020

^a Includes states having less than 3 establishments, in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Delaware, 2; Florida, 1; Nebraska, 1; Oregon, 1; Rhode Island, 2; Utah, 1.

CLAY PRODUCTS.

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DIFFERENT WEEKLY RATES OF PAY, CLAY AND POTTERY PRODUCTS, BY STATES AND TERRITORIES: 1890.

AVERAGE NUMBER OF EMPLOYEES IN EACH CLASS AND AVERAGE WEEKLY EARNINGS—continued.																	
Operatives and skilled.									Unskilled.						Pieceworkers.		
Males above 16 years.			Females above 15 years.			Children.			Males above 16 years.			Females above 15 years.			Children.		
Number.	Average weekly earnings per employé.	Total wages.	Number.	Average weekly earnings per employé.	Total wages.	Number.	Average weekly earnings per employé.	Total wages.	Number.	Average weekly earnings per employé.	Total wages.	Number.	Average weekly earnings per employé.	Total wages.	Number.	Average weekly earnings per employé.	Total wages.
8,171	\$11.35	\$4,458,924	940	\$5.11	\$236,360	238	\$3.05	\$94,700	5,779	\$8.39	\$2,349,484	592	\$3.68	\$109,928	167	\$3.10	\$25,186
26	12.35	9,258				7	2.37	410	14	4.62	1,622				4	3.00	208
31	7.88	10,787				15	2.29	1,600	11	5.24	2,818	2	6.03	470	1	2.56	100
165	15.30	121,294							190	10.86	94,483						
66	12.23	41,000				1	5.77	300	33	12.54	19,080				5	5.77	1,000
81	10.86	43,615				2	4.31	336	91	8.71	40,401	17	5.26	4,510	6	4.35	1,300
24	12.96	15,496							62	7.22	23,025						
177	7.22	54,928	4	2.42	594	2	0.06	40	40	5.99	9,131				10		
732	11.16	377,016				26	3.00	3,483	543	8.91	246,520	35	3.14	5,720	17	2.76	2,370
200	9.06	88,148	41	3.78	8,058				45	0.82	22,816				41		
162	9.16	65,085							56	7.47	19,088				27		
12	9.47	4,270				3	2.46	192	8	4.78	1,574				7		2,060
70	10.32	35,720	15	3.01	2,270				72	7.43	25,557				23		17,562
18	10.40	8,925							24	7.19	8,422				1		576
34	13.07	21,638							117	8.70	43,900				6		4,400
403	9.10	187,038	65	4.84	15,000				88	5.97	27,200				20	2.05	2,130
256	11.83	153,172	14	5.32	3,805	2	3.15	300	108	7.60	39,835	29	4.76	7,180	5	2.50	650
46	9.08	21,489				7	3.09	1,124	126	7.07	47,887				11		5,850
60	9.84	29,948							63	8.24	26,501	2	4.62	480	4	2.88	600
24	12.06	15,000				5	2.31	600	8	5.12	1,600				1		780
274	11.76	153,948				5	5.77	1,500	680	8.21	282,373	1	3.85	200	10	4.02	2,019
12	12.11	6,208	8	7.88	3,276				5	8.04	2,324				6		4,500
2,079	12.96	1,346,345	428	5.30	111,430	96	3.41	16,398	652	9.04	272,910	151	2.69	20,176			1,010
793	11.38	402,368	91	5.76	26,749	2	2.51	250	520	8.46	224,548	85	3.48	15,307	10	2.40	1,216
20	3.52	2,912							3	3.06	480				4		400
1,394	11.36	718,093	260	4.80	61,554	33	2.63	4,338	1,441	8.51	583,280	176	4.21	30,765	45	4.23	9,418
800	10.10	388,746	10	4.11	2,136	6	3.56	909	537	7.18	190,630	93	3.97	18,700	31	1.82	2,795
16	7.18	5,100				1	2.16	75	11	2.88	1,050				1		400
29	5.53	7,074				6	1.28	350	19	5.65	4,550				4		2,600
43	6.93	13,898				1	2.73	142	42	6.68	11,789				30		17,398
10	10.52	5,150							8	6.73	2,362				7		4,240
18	5.61	3,450				4	1.57	225	3	3.85	450				6		1,100
20	14.96	18,665							44	10.96	22,080	1	6.02	360			33
14	7.27	4,632				6	2.13	684	20	7.77	11,515				12		6,213
55	10.47	26,957	2	9.55	828				54	7.25	17,381				20		9,210
88	11.29	51,422	2	7.87	750	8	3.61	1,500	32	8.32	13,484				7		4,720

MANUFACTURING INDUSTRIES.

TABLE 4.—CLASSIFICATION OF EMPLOYÉS AND WAGES AND AVERAGE NUMBER OF EMPLOYÉS AT THE

STATES AND TERRITORIES.	AVERAGE NUMBER OF HOURS IN ORDINARY DAY OF LABOR.		WEEKLY RATES OF WAGES PAID AND AVERAGE NUMBER OF EMPLOYÉS AT EACH RATE, INCLUDING OFFICERS, FIRM MEMBERS, AND CLERKS, BUT NOT THOSE EMPLOYED ON PIECEWORK. (a)									
			MALES ABOVE 16 YEARS.									
	May to November.	November to May.	Total number.	Under \$5.	\$5 and over but under \$6.	\$6 and over but under \$7.	\$7 and over but under \$8.	\$8 and over but under \$9.	\$9 and over but under \$10.	\$10 and over but under \$12.	\$12 and over but under \$15.	\$15 and over but under \$20.
1 The United States	10.00	9.59	15,218	705	559	627	1,788	2,020	2,626	2,323	2,257	1,206
2 Alabama	10.55	9.27	46	13	6	3	4	2	5	10	8	8
3 Arkansas	9.89	9.44	52	4	13	11	7	2	10	136	140	45
4 California	9.83	9.67	386						2	24	68	8
5 Colorado	9.63	9.50	114							8	15	18
6 Connecticut	9.87	9.67	200			5	13	28	93			
7 District of Columbia	10.00	10.00	87	1	3	17	42	3	4	2	6	5
8 Georgia	10.29	8.71	248	17	64	26	81	68	2	7	14	10
9 Illinois	9.83	9.40	1,342	34	48	11	158	186	260	339	191	65
10 Indiana	9.70	9.30	277	12	4	39	19	30	50	56	27	17
11 Iowa	10.05	9.78	252	34	5	12	42	35	34	32	35	13
12 Kansas	12.00	11.33	26	5	1	2	3	1	4	8		
13 Kentucky	9.60	9.50	161	18	6	3	34	14	34	19	14	9
14 Louisiana	9.70	9.70	50	1	2	1	19	2	10	7	5	1
15 Maine	9.67	9.67	165	1		2	40	46	38	13	12	6
16 Maryland	10.00	9.64	508	53	76	10	202	10	50	19	29	12
17 Massachusetts	9.97	9.90	407	21	11	19	32	35	71	75	62	53
18 Michigan	9.64	9.55	190	16	10	30	53	5	28	18	12	12
19 Minnesota	9.67	9.44	139	1		10	10	30	62	8	1	15
20 Mississippi	9.33	9.00	40	2	13		3					17
21 Missouri	10.13	9.36	1,034	27	24	50	163	217	285	79	76	52
22 New Hampshire	10.00	10.00	22					3	5	5	5	3
23 New Jersey	10.17	9.97	2,925	66	50	70	220	238	207	657	682	203
24 New York	9.80	9.55	1,337	41	55	86	164	115	311	221	194	121
25 North Carolina	10.66	9.44	30	20	1	3	3			2	1	
26 Ohio	9.67	9.43	3,089	117	65	106	385	604	628	244	404	377
27 Pennsylvania	10.19	9.40	1,457	99	66	110	89	207	269	217	168	92
28 South Carolina	10.20	9.60	32	22			1		1	2	3	3
29 Tennessee	9.90	9.49	55	24	4	12	2		5	3	4	
30 Texas	10.28	9.53	101	28	4	22	0	2	21	6	4	5
31 Vermont	10.00	10.00	21	2		1	3	2	1	7	4	1
32 Virginia	10.20	9.20	29	10	11				1	5	2	
33 Washington	10.00	10.00	83				5	1	3	23	24	22
34 West Virginia	10.00	9.75	50	7		5	2	28	2	2	1	
35 Wisconsin	9.88	9.81	128	7	3	8	25	8	33	22	7	7
36 All other states	9.75	9.25	135	2	5	3	12	6	17	48	28	10

a In comparing the weekly rates of wages and the number of employés at each rate with the average weekly earnings presented in the first part of this table, it must be remembered that it is not practicable to obtain true average weekly earnings from the table of weekly rates, because the term of employment varies for the employés at the respective rates.

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DIFFERENT WEEKLY RATES OF PAY, CLAY AND POTTERY PRODUCTS, BY STATES AND TERRITORIES: 1890—Continued.

MANUFACTURING INDUSTRIES.

TABLE 5.—DAILY RATES OF WAGES, BY OCCUPATIONS, CLAY AND POTTERY PRODUCTS: 1890.

OCCUPATIONS.	DAILY RATES OF WAGES AND NUMBER OF EMPLOYÉS AT EACH RATE.															Average daily rate.	Average number of working hours per day.	Average number of days employed during the year.	
	Total number.	Under \$0.50.	\$0.50 to \$1.00.	\$1.00 to \$1.50.	\$1.50 to \$2.00.	\$2.00 to \$2.50.	\$2.50 to \$3.00.	\$3.00 to \$3.50.	\$3.50 to \$4.00.	\$4.00 to \$4.50.	\$4.50 to \$5.00.	\$5.00 to \$5.50.	\$5.50 to \$6.00.	\$6.00 and over.					
Total.....	8,352	33	783	1,984	2,508	1,551	580	403	115	128	24	215	7	12	\$1.79	9.73	285		
Basin makers:																			
Males above 16 years.....	15						9	2	6	2				2		3.13	9.80	308	
Biscuitware brushers:																			
Males above 16 years.....	89		19	18			2									0.92	9.66	284	
Females above 15 years.....	222		201	21												0.75			
Casters:																			
Males above 16 years.....	32				8	6	10		1	6	1					2.20	9.89	303	
Decorators:																			
Males above 16 years.....	167			1	2	83	31	45	5							2.40	9.75	281	
Females above 15 years.....	121		4	51	55	6	5									1.41			
Department foremen:																			
Males above 16 years.....	123				3	12	11	45	31	6	8	6	6			2.84	9.85	278	
Females above 15 years.....	6					1		2								1.63			
Dippers:																			
Males above 16 years.....	62		1	6	12	7	26	0						1		2.24	9.49	284	
Females above 15 years.....	16		13			3										0.85			
Dippers' help:																			
Males above 16 years.....	40		34	12												0.81	9.54	285	
Females above 15 years.....	47		44	3												0.72			
Children.....	8		5	3												0.82			
Dish makers:																			
Males above 16 years.....	48			10			3	4	20	2						2.27	9.72	291	
Drivers:																			
Males above 16 years.....	238	3	3	57	141	27	3	4								1.56	9.70	289	
Engineers:																			
Males above 16 years.....	147		1	7	20	60	28	10	3							2.12	9.95	284	
Engravers:																			
Males above 16 years.....	7								4	3						3.21	9.20	250	
Fillers in:																			
Males above 16 years.....	9			7	1	1										1.22	9.77	274	
Females above 15 years.....	254		128	00	27											0.80			
Children.....	6		6													0.77			
Fire-brick makers:																			
Males above 16 years.....	57				34	19	4									1.76	9.72	261	
Firemen:																			
Males above 16 years.....	221		1	24	84	65	23	18	1	3	2					1.98	10.04	202	
Glostware dressers:																			
Males above 16 years.....	25		11	14												0.89	9.70	276	
Females above 15 years.....	136		97	37	2											0.86			
Handlers:																			
Males above 16 years.....	39				5	5	9	10	8	1						1	2.33	9.50	284
Handlers' help:																			
Males above 16 years.....	45		34	8	2	1										0.84	9.54	288	
Children.....	14		14													0.71			
Jiggers:																			
Males above 16 years.....	207		2	10	32	22	38	40	10	26	11	7				2.70	9.72	280	
Kilnmen:																			
Males above 16 years.....	920			106	310	404	85	11				4				1.83	9.85	283	
Laborers:																			
Males above 16 years.....	1,833	24	1,078	688	38											1.38	9.79	275	
Children.....	57	25	27	5												0.46			
Machinists:																			
Males above 16 years.....	14				2	4	5	2		1						2.42	9.88	297	
Managers:																			
Males above 16 years.....	100				14	24	17	37	3	28	1	25	1	10	3.51	9.83	292		
Metal die pressers:																			
Males above 16 years.....	10				3	4	3									2.04	9.86	303	
Mixers of clay:																			
Males above 16 years.....	407	6	85	248	60	4	2		2							1.69	9.81	276	
Modelers:																			
Males above 16 years.....	160		1	7	18	28	20	22	35	4	15	3	1	1	3.34	9.47	280		
Mold makers:																			
Males above 16 years.....	163		4	7	55	50	30	4	2			2				2.48	9.57	278	
Packers:																			
Males above 16 years.....	229	2	29	102	64	19	11		2							1.81	9.74	285	
Pin and stilt makers:																			
Males above 16 years.....	11	4	3	1												1.40	9.75	284	
Females above 15 years.....	4															0.04			

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TABLE 5.—DAILY RATES OF WAGES, BY OCCUPATIONS, CLAY AND POTTERY PRODUCTS: 1890—Continued.

OCCUPATIONS.	DAILY RATES OF WAGES AND NUMBER OF EMPLOYÉS AT EACH RATE.														Average daily rate.	Average number of working hours per day.	Average number of days employed during the year.
	Total number.	Under \$0.50.	\$0.50 to \$1.00.	\$1.00 to \$1.50.	\$1.50 to \$2.00.	\$2.00 to \$2.50.	\$2.50 to \$3.00.	\$3.00 to \$3.50.	\$3.50 to \$4.00.	\$4.00 to \$4.50.	\$4.50 to \$5.00.	\$5.00 to \$5.50.	\$5.50 to \$6.00.	\$6.00 and over.			
Pressers:																	
Males above 16 years.....	804	.....	1	15	194	309	69	28	40	.....	.....	148	.....	.....	2.64	9.73	287
Children.....	21	.....	3	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.08	.....	.....
Printers:																	
Males above 16 years.....	41	.....	.....	6	14	18	3	18	3	.....	.....	.....	.....	.....	2.28	9.70	274
Females above 15 years.....	22	.....	1	.....	18	3	.....	.....	.....	.....	.....	.....	.....	.....	1.52	.....	.....
Sagger makers:																	
Males above 16 years.....	49	.....	.....	1	5	20	8	3	4	3	.....	2	3	.....	2.71	9.07	291
Sagger-makers' help:																	
Males above 16 years.....	40	.....	1	8	20	2	.....	.....	.....	.....	.....	.....	.....	.....	1.31	9.57	202
Selecters:																	
Males above 16 years.....	50	.....	1	19	26	4	.....	.....	.....	.....	.....	.....	.....	.....	1.49	9.88	288
Females above 15 years.....	7	.....	4	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	1.95	.....	.....
Selectors' help:																	
Males above 16 years.....	13	.....	2	9	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.10	9.85	281
Children.....	15	5	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.52	.....	.....
Sewer-pipe makers:																	
Males above 16 years.....	457	.....	93	252	104	8	.....	.....	.....	.....	.....	.....	.....	.....	1.63	9.82	278
Spongiers:																	
Males above 16 years.....	40	.....	32	8	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.85	9.50	279
Females above 15 years.....	78	.....	39	37	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.84	.....	.....
Throwers:																	
Males above 16 years.....	45	.....	3	6	14	5	12	.....	.....	2	.....	3	.....	.....	2.07	9.50	204
Turners:																	
Males above 16 years.....	211	.....	10	60	48	34	40	2	17	.....	.....	.....	.....	.....	2.31	9.66	282
Warehousemen:																	
Males above 16 years.....	82	.....	21	29	21	8	2	1	.....	.....	.....	.....	.....	.....	1.49	9.76	283
Watchmen:																	
Males above 16 years.....	52	.....	5	39	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.01	10.18	315

MANUFACTURING INDUSTRIES.

TABLE 6.—COMPARATIVE STATEMENT, BRICK AND TILE, BY STATES AND TERRITORIES: 1880 AND 1890.

STATES AND TERRITORIES.	Year.	Number of establish- ments reporting.	Capital.	AVERAGE NUMBER OF EMPLOYÉS AND TOTAL WAGES.					Cost of mate- rials used.	Value of products.		
				Aggregates.		Males above 16 years.	Females above 15 years.	Children.				
				Average number.	Total wages.							
The United States	1880	5,631	\$27,073,616	66,335	\$13,443,532	59,032	268	7,055	\$0,774,884	\$32,833,587		
	1890	5,828	82,578,506	109,151	32,695,189	104,119	266	4,766	12,639,597	87,770,685		
Alabama	1880	38	78,525	567	68,397	428	139	53,226	159,952			
	1890	59	705,168	1,579	350,689	1,419	13	147	160,754	778,950		
Arizona	1880	1	2,500	10	4,500	10			2,250	9,600		
	1890	3	1,210	31	2,600	31			700	4,300		
Arkansas	1880	32	38,700	375	53,775	339		38	36,000	117,370		
	1890	48	296,028	709	167,875	644		65	100,107	484,883		
California	1880	50	378,050	839	210,035	838		1	157,025	510,261		
	1890	52	1,478,991	1,447	828,842	1,442	1	4	945,340	1,371,654		
Colorado	1880	46	362,600	830	207,410	797		33	194,003	605,028		
	1890	83	1,747,782	2,254	1,080,513	2,194	5	55	306,933	2,023,078		
Connecticut	1880	48	328,350	541	132,476	511	9	21	91,022	299,194		
	1890	28	971,710	992	317,200	973	14	5	105,930	585,200		
Dakota (a)	1880	14	25,600	108	33,622	108			16,306	66,085		
	1890	17	133,700	299	68,442	299			24,218	180,425		
Delaware	1880	15	102,400	807	55,216	230		77	33,083	125,010		
	1890	13	250,982	427	143,136	406		21	30,341	268,534		
District of Columbia	1880	16	330,000	666	123,181	576		120	62,575	314,298		
	1890	13	772,681	1,204	442,929	1,125		70	208,430	846,950		
Florida	1880	9	7,850	107	12,458	104		3	0,750	28,100		
	1890	12	130,770	237	60,597	214	1	22	10,805	119,200		
Georgia	1880	76	212,080	1,228	188,883	1,022	14	192	115,747	400,025		
	1890	61	650,263	2,080	473,872	2,017		63	253,922	1,201,542		
Idaho	1880	2	2,500	11	3,340	11			1,850	6,990		
	1890	5	11,405	38	4,710	38			1,000	9,800		
Illinois	1880	616	2,397,023	5,903	1,288,804	5,310	13	571	955,584	3,065,802		
	1890	604	8,995,599	9,697	3,216,826	9,301	20	376	1,060,360	6,399,492		
Indiana	1880	735	1,408,264	4,240	716,254	3,908	4	328	694,226	1,027,858		
	1890	764	3,181,744	6,137	1,817,120	5,013	17	207	449,105	2,820,033		
Iowa	1880	280	478,014	2,251	426,120	2,083	13	175	270,063	944,407		
	1890	260	1,802,942	2,742	707,368	2,055	7	80	282,431	1,537,800		
Kansas	1880	103	125,825	1,046	174,111	948	19	79	90,985	355,068		
	1890	87	788,007	1,280	313,146	1,209	6	65	128,701	607,457		
Kentucky	1880	115	302,175	1,379	233,702	1,102	1	216	145,503	506,705		
	1890	99	826,058	1,957	476,845	1,823	3	131	185,577	1,011,603		
Louisiana	1880	31	87,425	368	68,020	305	13	40	30,067	133,265		
	1890	22	315,453	540	143,051	516	4	20	55,841	201,125		
Maine	1880	90	280,549	637	106,538	621		16	122,887	310,058		
	1890	118	437,655	1,073	279,128	1,029	39	6	132,157	611,760		
Maryland	1880	79	1,168,158	2,251	478,189	2,049		202	243,284	933,088		
	1890	64	2,560,002	2,508	681,475	2,410	1	97	217,385	1,481,603		
Massachusetts	1880	114	1,668,200	2,401	465,589	2,370	9	22	521,875	1,322,628		
	1890	110	3,014,277	8,261	1,090,450	3,255	6		598,587	2,314,400		
Michigan	1880	170	710,259	1,933	346,845	1,730	45	158	236,878	822,475		
	1890	185	1,585,955	2,616	538,750	2,505	9	42	218,353	1,170,005		
Minnesota	1880	87	281,705	1,010	200,208	928	5	77	114,610	502,975		
	1890	117	1,684,356	2,221	502,183	2,128	7	80	255,050	1,116,730		
Mississippi	1880	54	106,125	709	89,053	599	4	112	42,979	194,870		
	1890	33	196,745	696	134,073	651		46	61,043	295,039		
Missouri	1880	230	980,415	2,737	705,975	2,271	8	468	388,364	1,002,522		
	1890	232	4,690,716	4,834	1,706,492	4,458	8	368	709,020	3,503,906		
Montana	1880	5	17,500	68	21,400	68			11,400	43,150		
	1890	11	173,050	252	104,342	250		2	53,088	238,610		
Nebraska	1880	87	180,740	662	150,189	585	3	74	102,078	349,478		
	1890	155	2,791,774	2,720	844,850	2,570	5	145	484,918	2,173,632		
Nevada	1880	2	1,200	13	3,974	13			1,245	8,355		
	1890	(b)										
New Hampshire	1880	67	120,845	642	118,408	642			90,251	282,725		
	1890	62	535,723	1,408	842,276	1,405	2	1	192,458	789,856		
New Jersey	1880	107	1,731,300	2,740	665,482	2,575	26	148	559,037	1,072,533		
	1890	95	5,090,722	4,708	1,529,481	4,655	2	141	510,654	2,820,074		
New Mexico	1880	1	800	8	600	8			500	1,500		
	1890	(b)										
New York	1880	321	3,923,405	7,303	1,613,706	6,715	29	619	1,100,925	4,108,464		
	1890	275	8,411,230	10,800	3,435,415	10,575	24	207	1,121,035	6,683,629		

^a North and South Dakota combined for 1890.^b None reported in 1890.

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TABLE 6.—COMPARATIVE STATEMENT, BRICK AND TILE, BY STATES AND TERRITORIES: 1880 AND 1890—Continued.

STATES AND TERRITORIES.	Year.	Number of establis- ments reporting.	Capital.	AVERAGE NUMBER OF EMPLOYEES AND TOTAL WAGES.					Cost of mate- rials used.	Value of products.		
				Aggregates.		Males above 16 years.	Females above 15 years.	Children.				
				Average number.	Total wages.							
North Carolina.....	1880	66	\$54,390	614	\$40,928	433	3	178	\$34,657	\$150,874		
	1890	62	263,644	1,037	148,110	943	1	93	64,313	333,150		
North Dakota (a).....	1890	6	30,085	80	18,495	80	.....	.....	6,505	45,775
Ohio.....	1880	825	2,729,528	6,127	1,114,183	5,527	17	583	1,185,704	3,481,291		
	1890	875	6,212,888	9,301	2,649,185	8,907	13	381	1,022,930	5,813,497		
Oklahoma (b).....	1890	3	2,990	16	6,684	16	.....	.....	1,491	11,500
Oregon.....	1880	23	55,406	187	48,814	184	1	2	10,197	104,240		
	1890	47	656,151	701	237,773	689	.....	12	66,230	461,648	
Pennsylvania.....	1880	521	5,028,524	8,426	2,077,188	7,135	6	1,285	1,832,758	4,813,153		
	1890	509	12,917,885	13,612	4,764,392	12,437	30	1,145	1,741,000	9,403,716		
Rhode Island.....	1880	1	100,000	195	32,000	105	.....	.....	24,000	75,000
	c1890	.....	.....	.....	.....	.....	.....	.....	.....	.....
South Carolina.....	1880	20	31,100	307	35,903	200	2	96	17,208	80,810		
	1890	39	232,432	787	121,238	723	.....	64	45,650	265,598	
South Dakota (a).....	1890	11	103,605	219	49,947	219	.....	.....	17,623	134,650
Tennessee.....	1880	90	343,854	1,553	247,227	1,224	7	322	139,568	523,113		
	1890	78	1,046,216	2,000	656,806	1,903	8	170	188,797	1,244,367		
Texas.....	1880	113	183,530	1,185	204,499	1,042	8	135	105,074	448,418		
	1890	124	1,054,414	2,040	564,378	1,970	2	59	249,132	1,214,690		
Utah.....	1880	28	121,675	188	34,890	147	.....	41	19,825	85,392	
	1890	40	279,147	758	232,458	692	.....	66	66,551	421,058	
Vermont.....	1880	25	133,250	224	38,610	216	.....	8	18,735	83,650	
	1890	16	86,575	197	34,973	191	.....	6	17,008	89,091	
Virginia.....	1880	84	290,085	1,425	188,072	1,180	.....	245	80,420	308,789	
	1890	88	1,547,617	2,441	607,211	2,900	.....	141	214,553	1,343,598	
Washington.....	1880	2	3,000	16	2,430	16	.....	.....	1,150	6,000
	1890	86	1,058,965	1,826	684,461	1,799	9	18	213,884	1,389,050		
West Virginia.....	1880	47	242,050	446	111,301	384	1	61	30,061	218,710		
	1890	27	202,948	403	116,781	308	1	34	57,399	240,403		
Wisconsin.....	1880	119	560,872	1,395	231,351	1,205	8	182	101,400	607,669		
	1890	137	2,388,393	2,819	680,795	2,726	8	85	373,361	1,042,405		
Wyoming.....	1880	2	1,500	28	5,300	28	.....	.....	1,400	8,500
	1890	7	28,970	31	11,410	31	.....	.....	3,723	25,900
All other states.....	c1890	3	154,735	159	55,069	155	.....	4	28,512	123,000	

^a See Dakota.^b Part of Indian territory in 1880, from which no reports were received.^c Includes states having less than 3 establishments, in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Indian territory, 1; Rhode Island, 2.

MANUFACTURING INDUSTRIES.

TABLE 7.—DETAILED STATEMENT, BRICK AND

STATES AND TERRITORIES.	Number of establis- ments re- porting.	Aggregate.	CAPITAL.			
			Value of plant.			
			Total.	Land.	Buildings.	Machinery, tools, and implements.
1 The United States.....	5,328	\$82,578,566	\$53,629,375	\$21,031,133	\$14,601,046	\$17,997,196
2 Alabama.....	59	705,168	463,743	107,658	147,570	208,515
3 Arizona.....	3	1,210	610	55	55	500
4 Arkansas.....	48	206,029	212,008	90,018	32,765	88,417
5 California.....	52	1,478,991	727,711	198,800	241,546	287,365
6 Colorado.....	83	1,747,782	735,552	364,815	110,210	260,527
7 Connecticut.....	28	971,710	577,303	234,303	181,600	211,400
8 Delaware.....	13	250,982	180,083	7,625	88,260	64,208
9 District of Columbia.....	13	772,681	575,650	921,500	78,300	175,850
10 Florida.....	12	139,770	114,365	54,315	18,550	40,500
11 Georgia.....	61	950,233	680,658	819,050	125,323	206,285
12 Idaho.....	5	11,405	8,850	700	1,600	1,550
13 Illinois.....	604	8,995,590	6,155,722	2,149,830	1,885,629	2,120,263
14 Indiana.....	764	8,181,744	2,087,451	628,468	691,525	747,403
15 Iowa.....	200	1,802,942	1,206,751	497,000	368,603	430,398
16 Kansas.....	87	788,607	446,777	128,820	111,265	206,692
17 Kentucky.....	99	826,958	537,345	238,026	125,731	173,529
18 Louisiana.....	22	815,453	240,188	110,175	61,250	68,713
19 Maine.....	118	437,655	225,238	78,706	62,042	84,490
20 Maryland.....	64	2,500,902	1,362,651	550,651	382,206	420,704
21 Massachusetts.....	110	3,014,277	1,037,986	720,390	498,071	439,525
22 Michigan.....	185	1,585,955	1,117,078	478,400	226,294	412,289
23 Minnesota.....	117	1,584,356	1,020,480	619,590	152,950	247,940
24 Mississippi.....	88	196,745	115,300	36,425	36,320	42,555
25 Missouri.....	292	4,690,716	3,458,368	1,572,760	903,140	980,457
26 Montana.....	11	173,050	107,200	42,540	22,560	42,100
27 Nebraska.....	155	2,701,774	1,770,372	674,760	614,775	480,837
28 New Hampshire.....	62	555,723	231,685	88,475	56,625	86,585
29 New Jersey.....	95	5,090,722	3,830,300	1,203,950	1,105,150	1,431,200
30 New York.....	275	8,411,230	5,639,333	2,109,381	1,492,332	2,078,670
31 North Carolina.....	62	268,644	154,410	59,035	31,595	62,880
32 North Dakota.....	6	30,005	16,670	5,270	5,300	6,100
33 Ohio.....	875	6,212,888	3,900,008	1,294,326	1,200,048	1,465,629
34 Oklahoma.....	8	2,900	2,550	1,500	500	550
35 Oregon.....	47	656,151	403,155	294,750	39,455	68,950
36 Pennsylvania.....	500	12,917,835	8,345,703	3,414,045	2,543,217	2,388,531
37 South Carolina.....	39	232,432	151,738	54,708	24,770	72,170
38 South Dakota.....	11	108,605	60,530	23,325	10,080	27,175
39 Tennessee.....	78	1,046,216	641,545	218,197	97,358	325,900
40 Texas.....	124	1,054,414	688,348	804,985	140,155	243,208
41 Utah.....	40	270,147	158,925	82,780	12,485	63,600
42 Vermont.....	16	86,575	45,775	22,700	10,925	12,150
43 Virginia.....	88	1,547,617	970,765	455,005	140,580	375,180
44 Washington.....	86	1,058,905	677,205	235,755	128,255	318,255
45 West Virginia.....	27	202,946	155,297	54,915	50,828	49,554
46 Wisconsin.....	137	2,388,393	1,575,505	886,085	259,873	429,547
47 Wyoming.....	7	28,070	19,570	13,705	1,875	3,900
48 All other states (a).....	3	154,735	150,650	70,000	40,500	40,150

^a Includes states having less than 3 establishments, in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Indian territory, 1; Rhode Island, 2.

CLAY PRODUCTS.

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TITLE. BY STATES AND TERRITORIES: 1890.

CAPITAL—continued.				MISCELLANEOUS EXPENSES.							
Live assets.											
Total.	Raw materials.	Stock in process and finished products on hand.	Cash, bills and accounts receivable, and all sundries not elsewhere reported.	Total.	Rent paid for tenancy.	Taxes.	Insurance.	Repairs, ordinary, of buildings and machinery.	Amount paid to contractors.	Interest paid on cash used in the business.	All sundries not elsewhere reported.
\$28,919,191	\$8,183,066	\$13,130,391	\$12,635,734	\$5,108,769	\$1,201,998	\$353,355	\$178,019	\$1,203,693	\$181,624	\$518,447	\$1,471,033
241,425 600	104,285	65,130 550	72,010 50	53,364 37	25,205 37	2,837	788	11,975	-----	2,889	9,670
83,030	6,080	55,220	22,030	32,992	3,119	1,426	823	5,855	14,400	3,140	4,720
751,280 1,012,230	81,540 230,510	332,244 407,262	337,496 314,458	83,013 114,461	17,037 55,285	6,236 6,760	1,888 2,546	13,842 23,223	-----	2,790	40,311
394,317 90,890	31,035 11,065	200,650 57,034	182,032 22,800	23,739 19,923	3,382 10,250	3,672 3,67	1,050 525	9,900 2,315	1,785 1,441	3,050	7
197,031 25,405	14,100	88,400	94,531	63,031	610	5,960	1,190	18,210	-----	4,000	33,001
299,665	65,375	2,750 101,570	10,730 132,600	12,353 10,243	5,629 4,463	503 1,665	276 14,662	1,510 17,450	2,900 3,854	1,535	10,043
7,555 2,839,877	655 297,767	6,600 1,375,459	300 1,160,651	1,102 575,457	820 182,142	22 39,837	110 26,942	180,086 180,086	2,121 46,172	150 142,157	12
1,114,293	96,494	506,480	511,840	176,084	30,150	17,543	7,932	58,001	20,813	24,576	14
596,191 341,830	68,030 127,585	207,836 128,065	230,425 86,180	84,811 45,890	19,140 14,983	8,532 3,422	4,495 2,627	25,750 7,707	540 -----	16,412	15
280,613 75,815	24,257 10,840	120,699 39,675	138,657 24,800	79,871 18,254	11,792 108	5,352 2,660	2,185 790	14,139 4,247	6,500 1,650	39,903 8,790	18
212,417 1,198,251	21,055	111,310	80,052	30,383	2,874	2,588	912	8,058	2,560	12,482	20
1,356,201	101,403	378,723	718,125	270,437	47,625	11,447	3,947	23,277	118,114	22,983	50,044
468,882 563,876	55,964 143,560	256,565 258,877	156,363 161,439	67,479 77,487	7,788 16,382	5,728 7,765	1,405 2,299	23,366 20,300	4,810 4,810	9,181 13,205	22
81,445 1,234,360	13,875 102,140	93,770 444,530	33,800 88,665	11,053 251,978	1,046 37,442	1,307 18,404	335 13,423	2,380 60,280	-----	1,575 83,121	4,450 83,248
66,450	1,600	47,050	16,600	9,335	3,625	455	570	1,950	-----	960	1,773
1,021,402 304,038	99,206 51,490	438,332 163,467	483,864 80,081	138,257 28,690	17,942 4,066	11,410 2,726	7,674 1,410	53,130 0,077	-----	30,000 2,000	17,188 7,405
1,260,422 2,730,897	100,158 219,921	556,882 1,336,512	601,432 1,174,464	246,487 944,775	14,580 361,121	10,345 38,560	8,494 17,168	54,755 133,725	-----	45,685 11,364	112,610 324,242
109,234	17,060	54,786	37,388	11,940	2,301	845	470	4,510	500	1,405	1,840
13,425 2,252,835	3,700 101,843	4,750 994,095	4,975 994,095	1,888 308,908	300 73,351	283 33,260	1,280 16,327	1,280 106,578	625 625	40,025 40,025	25 34
440	240	200	300	195	-----	25	-----	25	-----	20	-----
252,066 4,572,042	21,435 312,208	154,035 1,873,936	73,926 2,386,838	15,237 630,165	4,085 187,400	2,490 42,071	202 24,257	3,210 155,059	100 100	2,525 44,189	2,515 170,589
80,604 43,075	14,794 5,250	36,615 28,125	29,285 9,700	16,450 3,078	8,356 20	455 680	280 71	3,470 930	-----	2,020 1,400	2,800 508
404,071 386,066	24,045 47,030	171,734 192,085	176,892 125,751	55,756 53,888	8,513 3,514	5,707 4,993	5,555 1,448	19,643 15,675	-----	11,036 7,028	5,302 20,310
120,222 40,800	14,550 5,100	73,010 19,050	32,002 16,050	27,601 3,086	15,000 225	623 203	28 50	3,605 865	4,000 -----	2,025 528	4,040 1,225
576,852 381,700	121,516 51,550	210,652 223,270	244,084 107,080	46,615 55,702	8,329 13,392	4,149 3,285	2,866 1,743	16,440 10,360	-----	5,005 6,237	9,226 20,685
47,049 812,888	6,353 143,506	23,746 397,900	17,550 271,482	3,036 114,503	605 5,099	457 13,878	347 4,382	720 28,114	-----	721 25,184	4,305 41,946
9,400 4,085	8,800 585	3,500	600	351 75	135 111	-----	50 25	-----	25	25	30 50

MANUFACTURING INDUSTRIES.

TABLE 7.—DETAILED STATEMENT, BRICK AND

STATES AND TERRITORIES.	AVERAGE NUMBER OF EMPLOYÉS AND TOTAL WAGES.					
	Aggregates.		Officers, firm members, and clerks.			
	Average number.	Total wages.	Males above 16 years.		Females above 15 years.	
			Number.	Wages.	Number.	Wages.
1 The United States.....	100,151	\$32,695,189	4,921	\$2,960,263	54	\$10,560
2 Alabama.....	1,579	350,089	48	30,446		
3 Arizona.....	31	2,600				
4 Arkansas.....	709	107,075	30	25,502		
5 California.....	1,447	828,842	55	55,063		
6 Colorado.....	2,254	1,090,518	109	100,065	1	202
7 Connecticut.....	902	317,200	41	30,418		
8 Delaware.....	427	143,136	17	15,086		
9 District of Columbia.....	1,201	442,020	22	25,359		
10 Florida.....	287	60,597	22	11,239		
11 Georgia.....	2,080	473,872	61	46,420		
12 Idaho.....	38	4,710	3	510		
13 Illinois.....	9,607	3,210,826	540	329,996	4	1,450
14 Indiana.....	6,137	1,317,120	535	180,913	3	750
15 Iowa.....	2,742	707,368	196	78,004	3	776
16 Kansas.....	1,280	313,146	52	27,478	2	443
17 Kentucky.....	1,957	476,845	90	53,306	3	815
18 Louisiana.....	540	143,051	29	20,007		
19 Maine.....	1,073	279,188	66	27,802		
20 Maryland.....	2,508	681,475	72	54,347	1	50
21 Massachusetts.....	3,261	1,090,450	129	91,027	3	1,195
22 Michigan.....	2,610	538,750	130	42,582	1	350
23 Minnesota.....	2,221	502,183	148	59,086		
24 Mississippi.....	696	134,073	28	11,634		
25 Missouri.....	4,834	1,700,492	224	176,160	5	3,252
26 Montana.....	252	104,342	8	6,440		
27 Nebraska.....	2,720	844,850	133	84,809	1	155
28 New Hampshire.....	1,408	342,275	28	13,290		
29 New Jersey.....	4,708	1,520,481	127	93,507	2	920
30 New York.....	10,800	3,435,415	268	204,383	5	1,768
31 North Carolina.....	1,037	148,110	41	16,307		
32 North Dakota.....	80	18,405	2	950		
33 Ohio.....	9,301	2,040,165	630	327,018	5	2,140
34 Oklahoma.....	16	6,684	2	407		
35 Oregon.....	701	237,773	88	38,069		
36 Pennsylvania.....	13,612	4,764,302	456	372,564	10	3,128
37 South Carolina.....	787	121,238	23	10,115		
38 South Dakota.....	210	40,947	14	5,534		
39 Tennessee.....	2,090	650,806	78	59,356		
40 Texas.....	2,040	504,378	88	53,975	1	250
41 Utah.....	758	232,458	90	16,101		
42 Vermont.....	197	34,973	7	2,517		
43 Virginia.....	2,441	607,211	82	48,608		
44 Washington.....	1,826	684,401	60	37,292	2	1,000
45 West Virginia.....	408	110,781	15	9,165	1	65
46 Wisconsin.....	2,810	680,795	114	60,157	1	800
47 Wyoming.....	31	11,410	2	390		
48 All other states.....	150	55,000	6	4,489		

CLAY PRODUCTS.

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TITLE, BY STATES AND TERRITORIES: 1890—Continued.

AVERAGE NUMBER OF EMPLOYÉS AND TOTAL WAGES—continued.											
Operatives, skilled and unskilled.						Pieceworkers.					
Males above 16 years.		Females above 15 years.		Children.		Males above 16 years.		Females above 15 years.		Children.	
Number.	Wages.	Number.	Wages.	Number.	Wages.	Number.	Wages.	Number.	Wages.	Number.	Wages.
93,614	\$27,471,360	152	\$21,016	4,360	\$474,926	5,584	\$1,675,049	60	\$15,811	397	\$40,695
1,306	284,005	7	784	136	16,706	65	16,762	6	60	11	1,830
31	2,600			65	7,075	57	9,634				
548	125,374			4	486	112	26,905				
1,275	546,028	1	300	55	9,558	83	47,931				
2,002	941,037	4	660								
881	256,748	5	1,320	5	650	51	24,500	9	9,564	4	600
379	123,104			17	1,616	10	2,700			4	800
1,031	384,708			75	15,000	72	16,862			4	1,000
189	45,073	1	175	22	3,110	3	1,000				
1,816	403,394			58	4,583	140	19,950			5	125
35	4,200										
7,873	2,503,839	16	2,181	333	36,550	888	335,513			48	7,287
4,997	1,016,802	10	700	189	10,089	381	99,807	4	280	18	1,710
2,325	584,723			71	5,286	384	37,246	4	363	9	970
1,054	244,717	4	420	65	5,440	103	34,630				
1,509	363,818			108	9,252	215	47,526			23	2,128
447	109,421	4	700	15	918	40	11,173			5	832
923	214,005	2	714	4	300	40	24,731	37	11,544	1	42
1,793	504,582			67	6,809	545	113,797			30	1,890
3,021	903,930	3	630			105	33,050				
2,375	478,385	8	1,433	42	8,220	60	12,780				
1,958	428,585	7	443	81	6,589	22	6,700			5	180
603	106,932			45	8,107	66	12,400				
3,935	1,372,750	3	230	336	47,326	299	105,715			32	2,050
230	91,802			2	100	12	0,000				
2,377	726,007	4	497	145	20,102	60	13,180				
1,467	328,631	2	204	1	90						
4,420	1,384,644			131	12,513	108	36,935			10	662
10,280	3,184,113	19	2,438	206	25,461	47	17,049			1	203
902	125,910	1	100	90	5,721					3	72
78	17,545										
7,006	2,107,744	8	513	392	30,073	662	173,463			49	7,014
14	6,187										
640	198,601			12	1,028	2	80				
11,073	3,929,541	20	4,136	1,015	128,008	908	306,793			130	20,162
698	106,830			64	4,228	2	65				
205	44,413										
1,788	578,600	8	1,488	172	13,334	37	3,902			7	71
1,814	480,681	1	150	59	7,311	82	22,681				
688	109,450			63	7,275	24	9,092			8	540
184	32,006			6	450						
2,141	530,923			137	8,258	77	13,300			4	32
1,716	631,260	7	726	18	1,171	23	13,012				
344	100,098			94	3,813	9	2,740				
2,568	589,065	7	550	85	5,336	44	15,887				
29	11,020										
147	40,980			4	200	2	400				

MANUFACTURING INDUSTRIES.

TABLE 7.—DETAILED STATEMENT, BRICK AND

CLAY PRODUCTS.

TILE, BY STATES AND TERRITORIES: 1890—Continued.

MANUFACTURING INDUSTRIES.

TABLE 8.—CLASSIFICATION OF EMPLOYÉS AND WAGES AND AVERAGE NUMBER OF EMPLOYÉS AT THE

STATES AND TERRITORIES.	Number of establish- ments report- ing.	AVERAGE NUMBER OF EMPLOYÉS IN EACH CLASS AND AVERAGE WEEKLY EARNINGS.														
		Aggregates.		Officers or firm members actively engaged in the industry or in supervision.				Clerks.								
		Average number.	Total wages.	Males above 16 years.		Females above 15 years.		Males above 16 years.		Females above 15 years.						
		Num- ber.	Total wages.	Num- ber.	Average weekly earnings per em- ployé.	Num- ber.	Average weekly earnings per em- ployé.	Num- ber.	Average weekly earnings per em- ployé.	Num- ber.	Average weekly earnings per em- ployé.					
1	The United States ..	5,828	109,151	\$32,695,189	4,107	\$20.08	\$2,513,617	12	\$11.51	\$4,800	724	\$16.40	\$452,646	42	\$9.32	\$14,769
2	Alabama	59	1,579	350,689	46	21.01	29,580				2	11.67	800			
3	Arizona	3	91	2,600							1	5.18	150			
4	Arkansas	48	709	167,075	38	23.87	25,442				17	20.91	14,814			
5	California	52	1,447	628,842	38	28.58	40,249				14	22.42	11,401	1	20.15	262
6	Colorado	83	2,254	1,090,513	95	30.68	88,574									
7	Connecticut	28	902	317,200	31	25.09	24,168				10	21.85	6,250			
8	Delaware	13	427	143,136	15	28.01	13,500				2	25.51	1,520			
9	District of Columbia	13	1,204	442,929	15	32.88	18,235				7	22.68	7,124			
10	Florida	12	237	60,597	19	18.09	10,155				3	10.01	1,084			
11	Georgia	61	2,080	473,872	54	21.75	41,520				7	14.00	4,000			
12	Idaho	5	38	4,710	3	17.44	510									
13	Illinois	604	9,697	3,216,826	468	19.70	276,073				82	10.14	53,923	4	8.81	1,450
14	Indiana	704	6,137	1,317,120	504	12.94	171,691	2	0.28	600	31	9.88	9,222	1	2.88	150
15	Iowa	260	2,742	707,368	183	14.50	74,637	2	8.75	616	13	9.31	3,867	1	7.38	160
16	Kansas	87	1,280	313,146	48	19.26	26,600				4	11.26	878	2	7.80	443
17	Kentucky	99	1,957	470,845	92	18.81	50,373	1	14.42	375	7	13.67	2,933	2	6.15	440
18	Louisiana	22	540	143,051	20	21.07	15,495				9	12.70	4,512			
19	Maine	118	1,073	270,188	64	17.60	27,082				2	9.77	720			
20	Maryland	64	2,508	681,475	51	24.65	48,130				21	14.73	11,217	1	2.56	50
21	Massachusetts	110	3,261	1,090,450	103	20.80	69,665	2	10.79	795	26	18.66	21,362	1	7.69	400
22	Michigan	165	2,016	538,750	120	14.00	40,221				10	9.91	2,361	1	16.15	350
23	Minnesota	117	2,221	502,183	132	18.16	53,381				16	15.73	6,355			
24	Mississippi	33	696	134,073	24	15.10	10,074				4	9.60	1,560			
25	Missouri	232	4,834	1,706,492	104	25.62	148,044				30	20.93	26,210	5	14.04	3,252
26	Montana	11	252	104,342	8	33.03	0,440									
27	Nebraska	155	2,720	844,850	112	22.44	69,844				21	20.88	14,465	1	5.11	155
28	New Hampshire	62	1,498	342,275	26	21.32	12,504				2	14.57	720			
29	New Jersey	95	4,798	1,529,481	91	21.90	67,686	1	15.00	520	36	16.38	25,821	1	10.26	400
30	New York	275	10,806	3,435,415	208	25.11	161,434	1	12.59	600	60	17.34	42,949	4	9.21	1,168
31	North Carolina	62	1,037	148,110	36	14.63	14,467				5	10.11	1,840			
32	North Dakota	6	80	18,405	2	27.40	850									
33	Ohio	875	9,301	2,640,165	580	10.87	289,229	1	9.23	480	50	15.29	38,380	4	9.23	1,060
34	Oklahoma	3	16	6,084	2	14.80	497									
35	Oregon	47	701	237,778	98	32.36	38,069									
36	Pennsylvania	509	13,612	4,764,392	320	23.30	201,790	2	17.08	814	127	14.60	80,774	8	6.85	2,814
37	South Carolina	39	797	121,238	21	15.16	8,803				2	15.14	1,312			
38	South Dakota	11	210	49,947	14	16.17	5,534									
39	Tennessee	78	2,090	650,806	60	22.48	45,229				18	19.21	14,127			
40	Texas	124	2,040	564,378	69	21.45	46,985				14	17.61	6,390	1	6.41	250
41	Utah	40	758	232,458	27	10.86	14,461				3	17.81	1,640			
42	Vermont	16	197	34,973	7	17.34	2,517									
43	Virginia	88	2,441	607,211	60	18.11	35,726				22	15.61	12,972			
44	Washington	86	1,326	684,401	56	25.27	35,292				4	22.51	2,000	2	12.82	1,000
45	West Virginia	27	403	116,781	15	17.00	9,165				31	14.28	15,187	1	4.00	65
46	Wisconsin	137	2,819	680,795	88	22.97	53,970				81	14.28	15,187	1	18.46	800
47	Wyoming	7	31	11,410	2	15.00	390									
48	All other states (a)	8	159	55,069	4	25.89	3,254				2	16.76	1,235			

^a Includes states having less than 3 establishments, in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Indian territory, 1; Rhode Island, 2.

CLAY PRODUCTS.

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DIFFERENT WEEKLY RATES OF PAY, BRICK AND TILE, BY STATES AND TERRITORIES: 1890.

AVERAGE NUMBER OF EMPLOYÉS IN EACH CLASS AND AVERAGE WEEKLY EARNINGS—continued.

Operatives and skilled.										Unskilled.										Pieceworkers.	
Males above 16 years.			Females above 15 years.			Children.				Males above 16 years.			Females above 15 years.			Children.					
Number.	Average weekly earnings per employé.	Total wages.	Number.	Average weekly earnings per employé.	Total wages.	Number.	Average weekly earnings per employé.	Total wages.	Number.	Average weekly earnings per employé.	Total wages.	Number.	Average weekly earnings per employé.	Total wages.	Number.	Average weekly earnings per employé.	Total wages.	Number.	Total wages.		
52,749	\$10.21	\$16,305,497	101	\$5.28	\$14,810	2,294	\$3.05	\$251,523	40,865	\$8.37	\$11,105,863	51	\$4.54	\$6,806	2,075	\$3.03	\$223,403	6,041	\$1,741,455		
639	7.63	156,372				92	3.44	13,238	687	6.30	127,033	7	4.81	784	44	2.48	3,558	82	18,658		
26	14.34	2,470							5	8.00	130								3		
274	9.51	79,130				63	4.18	6,775	274	7.33	46,244					2	2.88	300	57	9,034	
510	13.22	265,727							765	8.07	280,301	1	10.38	360	4	7.24	486	112	26,905		
1,436	16.50	681,382	2	7.87	480	15	5.69	3,032	566	12.45	250,655	2	3.46	180	40	5.66	6,526	83	47,931		
502	10.26	140,285							379	9.18	110,463	5	8.02	1,320	5	5.00	650	80	28,064		
110	13.82	50,150							299	8.12	72,954				17	2.86	1,646	14	3,300		
705	9.16	319,832				75	5.13	15,000	236	7.68	64,876							76	17,862		
66	7.80	12,822				11	3.69	1,200	123	5.87	32,251	1	4.04	175	11	4.01	1,910	3	1,000		
880	7.42	213,345				27	3.09	2,158	936	5.52	190,049				31	1.83	2,425	145	10,475		
35	12.50	4,200																	12		
4,860	10.37	1,586,968	14	4.04	1,989	102	3.54	20,014	3,013	9.28	916,871	2	4.03	192	141	4.49	16,536	931	342,810		
3,210	7.84	652,284	6	3.53	459	126	3.48	10,606	1,797	7.14	364,578	4	2.75	250	63	2.88	5,428	403	101,797		
1,490	9.32	361,408				46	2.86	3,483	835	8.58	223,315				25	3.47	1,803	147	38,579		
684	8.71	155,028	1	4.02	30	46	3.30	3,492	370	8.47	89,080	3	5.00	300	19	4.30	1,957	103	34,639		
762	9.63	203,802				59	2.84	3,730	747	7.00	100,016				49	3.92	5,513	238	49,654		
809	7.26	80,198	4	4.04	700	5	1.48	225	138	5.89	29,223				10	2.67	693	45	12,005		
694	10.22	163,008	2	9.00	714	2	2.88	125	220	8.45	50,997				2	2.88	175	78	36,317		
917	8.77	290,157				20	2.77	1,401	876	7.31	214,425				47	3.25	5,348	575	115,687		
2,125	9.91	698,491	3	6.46	630				896	9.15	205,508							105	33,050		
1,464	9.01	298,508	7	6.95	1,205	26	3.21	1,552	911	8.04	170,877	1	5.31	138	16	4.01	1,668	60	12,780		
986	10.58	238,553	6	4.02	888	15	4.15	1,381	972	8.91	190,032	1	2.31	66	3,12	5,208	27	6,880			
265	7.98	68,208				27	2.41	1,715	208	5.71	48,724				18	3.03	1,392	60	12,400		
1,903	11.36	727,429	3	2.95	230	153	4.16	24,305	2,032	8.98	646,321				183	3.03	23,021	231	107,774		
133	17.88	50,468							97	16.00	32,334				2	2.01	100	12	6,000		
983	11.49	325,236	2	4.09	133	56	5.13	9,323	1,394	9.77	401,371	2	6.00	304	80	4.56	10,779	60	13,180		
926	9.82	216,760	2	5.54	204	1	3.78	90	541	8.84	111,871								2		
1,666	11.70	680,906				50	3.42	6,330	2,754	7.33	703,738				72	2.67	6,183	118	37,807		
4,965	10.69	1,067,443	11	6.16	1,816	82	4.30	11,673	5,205	9.83	1,576,370	8	2.63	622	124	3.69	13,788	48	17,252		
501	5.61	73,307				56	2.17	2,996	401	4.33	52,603	1	2.88	100	34	2.06	2,725	3	72		
57	12.01	12,855							21	11.04	4,000								3		
5,208	9.20	1,461,081	5	2.86	305	188	3.49	16,476	2,398	7.73	646,663	3	1.95	148	144	3.37	14,197	711	180,477		
13	12.74	6,100							1	8.03	87								3		
310	13.03	99,501				10	5.34	763	339	10.06	.00,040				2	5.00	260	2	89		
6,576	10.87	2,523,850	20	5.74	4,130	548	3.71	67,109	4,497	8.03	1,405,682				407	3.95	60,950	1,038	326,955		
381	5.98	56,655							317	4.72	50,175								3		
87	9.81	20,112				40	3.30	3,925	118	7.80	24,301								3		
600	10.36	239,209							1,098	7.95	330,301	8	4.75	1,483	184	3.24	11,143	44	4,038		
1,171	9.10	307,785				38	2.36	2,189	1,098	7.95	330,301				27	4.80	4,120	82	22,631		
						32	2.79	3,185	1,043	7.84	172,876	1	5.77	150		5	4.53				
458	14.39	146,070							180	11.73	53,380								4		
96	8.96	19,586							88	7.18	12,420					6	4.51	450		4	
996	8.04	253,481				67	2.17	3,898	1,145	7.07	283,442				70	2.70	4,360	81	13,332		
1,007	15.07	384,953	6	6.81	636	13	2.80	808	709	12.83	246,307	1	10.38	90	5	4.53	363	23	13,012		
189	8.88	64,607				26	3.24	2,820	155	7.30	36,391				8	3.06	903	9	2,740		
1,343	9.65	346,054	7	3.10	550	43	2.19	2,226	1,225	7.61	243,011				42	2.80	3,110	44	15,887		
25	12.29	9,770							4	12.02	1,250								4		
26	13.96	10,042							4	2.88	200	121	12.19	39,938				2	400		

MANUFACTURING INDUSTRIES.

TABLE S.—CLASSIFICATION OF EMPLOYÉS AND WAGES AND AVERAGE NUMBER OF EMPLOYÉS AT THE

STATES AND TERRITORIES.	AVERAGE NUMBER OF HOURS IN ORDINARY DAY OF LABOR.		WEEKLY RATES OF WAGES PAID AND AVERAGE NUMBER OF EMPLOYÉS AT EACH RATE, INCLUDING OFFICERS, FIRM MEMBERS, AND CLERKS, BUT NOT THOSE EMPLOYED ON PIECEWORK. (a)												
			Males above 16 years.												
	May to November.	November to May.	Total number.	Under \$5.	\$5 and over but under \$6.	\$6 and over but under \$7.	\$7 and over but under \$8.	\$8 and over but under \$9.	\$9 and over but under \$10.	\$10 and over but under \$12.	\$12 and over but under \$15.	\$15 and over but under \$20.	\$20 and over but under \$25.	\$25 and over.	
1 The United States	9.02	9.56	98,535	5,564	5,309	9,621	13,383	10,089	17,056	15,668	11,192	6,753	1,971	1,320	
2 Alabama	10.20	9.05	1,354	243	187	409	257	47	63	33	50	33	14	18	
3 Arizona	9.33	9.33	31				5		8			3	15		
4 Arkansas	10.04	9.97	587	12	58	95	63	104	137	27	30	41	9	11	
5 California	9.66	9.49	1,330	9	8	202	66	36	180	249	407	105	33	35	
6 Colorado	8.72	8.62	2,111	2	1		23	11	36	286	475	1,008	130	139	
7 Connecticut	10.16	9.88	922	6	32	12	19	78	402	269	47	27	16	14	
8 Delaware	9.69	9.60	396		10	9	129	69	54	41	27	39	6	12	
9 District of Columbia	9.31	9.17	1,053	15	28	55	324	44	132	205	213	21	9	7	
10 Florida	10.00	9.02	211	16	52	70	30	8	9	12	4	10			
11 Georgia	10.34	9.68	1,877	529	399	399	156	201	53	187	84	28	13	18	
12 Idaho	9.60	9.33	88					5	6	1	8	13	5		
13 Illinois	9.58	9.49	8,413	231	305	530	1,326	814	1,050	1,154	1,480	588	208	120	
14 Indiana	9.89	9.60	5,532	498	524	849	1,219	700	680	522	304	144	66	17	
15 Iowa	9.97	9.58	2,521	105	138	139	411	402	602	404	161	112	35	12	
16 Kansas	9.72	9.62	1,106	117	55	96	149	115	259	130	89	71	17	8	
17 Kentucky	9.49	9.15	1,608	121	85	333	243	78	350	137	141	62	22	27	
18 Louisiana	10.07	9.88	476	27	72	154	123	21	33	11	11	13	3	8	
19 Maine	11.27	9.88	989	37	16	47	116	143	127	218	215	47	15	8	
20 Maryland	9.52	9.33	1,865	68	83	307	504	227	252	147	88	76	8	20	
21 Massachusetts	10.80	10.23	3,150	12	81	280	107	324	890	853	210	206	62	35	
22 Michigan	10.02	9.49	2,505	94	110	230	555	228	728	330	126	62	25	8	
23 Minnesota	10.22	9.60	2,106	10	69	123	186	218	736	329	233	28	52	22	
24 Mississippi	9.77	9.81	591	74	109	168	80	71	27	30	16	12	1	3	
25 Missouri	9.36	9.50	4,159	144	158	264	449	303	1,158	851	273	285	90	94	
26 Montana	9.64	9.83	238							17	40	137	34	10	
27 Nebraska	9.60	9.40	2,510	32	14	57	144	224	668	777	284	185	53	52	
28 New Hampshire	11.54	10.89	1,495	10	59	117	160	283	368	298	84	63	42	11	
29 New Jersey	10.37	10.08	4,547	375	136	365	1,042	561	444	774	512	237	77	24	
30 New York	10.42	9.41	10,528	178	344	511	752	807	2,042	3,215	1,818	498	204	159	
31 North Carolina	10.31	9.61	943	521	180	74	41	26	45	19	21	6	8	2	
32 North Dakota	10.00		80		2	4	5	7	14	16	15	4	12	1	
33 Ohio	10.04	9.69	8,245	394	404	1,075	1,585	1,031	1,508	764	812	413	112	87	
34 Oklahoma	10.00	10.00	16					7	1		3	1	4		
35 Oregon	9.77	9.80	687	18	9	10	27	82	51	254	133	61	27	15	
36 Pennsylvania	9.52	9.21	11,529	509	826	776	1,244	1,430	1,890	2,145	1,386	944	229	141	
37 South Carolina	10.58	9.67	721	407	110	91	31	18	24	14	17	3	5	1	
38 South Dakota	10.00	9.50	210	1	2	37	1	51	98	15	4	6	4		
39 Tennessee	9.90	10.07	1,806	184	199	556	135	119	193	114	89	103	57	27	
40 Texas	9.65	9.27	1,897	141	112	118	340	249	568	107	149	56	26	31	
41 Utah	9.46	9.55	668	3	12	14	35	5	56	44	247	197	45	10	
42 Vermont	10.44	10.50	191	17		27	50	37	33	7	7	9	2	2	
43 Virginia	10.07	9.70	2,223	211	194	744	392	266	145	71	85	76	20	19	
44 Washington	9.97	9.65	1,776	3	10	25	11	107	120	360	573	400	111	56	
45 West Virginia	9.78	9.62	359	52	14	47	52	69	50	31	21	18	2	3	
46 Wisconsin	10.04	9.77	2,082	138	132	193	615	350	720	233	127	92	43	30	
47 Wyoming	10.00	9.00	31					5	4	4	9	9	9		
48 All other states	10.00	9.38	153				1			4	13	119	11	2	3

^a In comparing the weekly rates of wages and the number of employés at each rate with the average weekly earnings presented in the first part of this table it must be remembered that it is not practicable to obtain true average weekly earnings from the table of weekly rates, because the term of employment varies for the employés at the respective rates.

CLAY PRODUCTS.

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DIFFERENT WEEKLY RATES OF PAY, BRICK AND TILE, BY STATES AND TERRITORIES: 1890—Continued.

SHIPBUILDING.

SHIPBUILDING.

The tabular statements presented herewith include reports made by establishments whose principal products consisted of the building or repairing of iron, steel, or wooden sail or steam ships, barges, canal or other boats, masts, or spars. The year covered by the report is the census year ending May 31, 1890.

The returns have been tabulated and are presented in this report under 4 subtitles: (1) "Building of iron and steel vessels"; (2) "Building of wooden vessels"; (3) "Building of boats, masts, and spars", and (4) "Repairing of vessels". The data for the entire industry and for the 4 branches are summarized as follows:

SHIPBUILDING IN THE AGGREGATE AND BY SUBDIVISIONS: 1890.

ITEMS.	Aggregate.	Iron and steel vessels.	Wooden vessels.	Boats, masts, and spars.	Repairing of vessels.
Number of establishments reporting	1,010	21	259	503	227
Capital, direct investment.....	\$53,398,074	\$33,900,148	\$8,928,851	\$5,181,857	\$5,432,218
Miscellaneous expenses.....	\$1,392,551	\$546,135	\$482,377	\$110,129	\$254,910
Average number of employés (aggregate).....	25,934	10,767	8,173	2,196	4,708
Total wages	\$16,028,847	\$6,570,063	\$4,045,070	\$1,301,155	\$3,412,050
Officers, firm members, and clerks:					
Average number.....	1,123	138	322	413	250
Total wages	\$1,194,870	\$201,105	\$313,328	\$300,915	\$289,522
All other employés:					
Average number.....	24,811	10,629	7,851	1,783	4,548
Total wages	\$14,833,977	\$6,287,058	\$4,332,351	\$1,000,240	\$3,128,428
Cost of materials used.....	\$16,925,109	\$6,037,425	\$6,582,032	\$1,151,708	\$2,553,884
Value of products.....	\$40,342,115	\$15,206,658	\$14,218,099	\$3,101,520	\$7,735,882

The reports have been assigned to the 4 branches of shipbuilding according to the product of chief value shown by each return; therefore, the totals given for the respective branches do not represent the full value of the products of each branch. For instance, the presentation for the subdivision entitled "Repairing of vessels" falls short of the total value of such repairs by the value of vessel repairs made in establishments included in the other 3 classes. It may also happen that establishments reported elsewhere in the general report on manufactures, under the heads of "Foundry and machine shop products" or "Carpentering", and similar productive industries, build or repair vessels; such work being incidental, is included in the report for the establishment which is tabulated in its proper class.

The subdivision "Iron and steel vessels" includes the building of iron and steel steam or sail vessels and barges; "Wooden vessels" includes the building of wooden, steam, or sail vessels, barges, and canal boats; "Boats, masts, and spars" includes the building of ships' boats, fishing boats, pleasure boats, and lifeboats, also the manufacture of masts and spars; "Repairing" includes returns from all establishments whose principal product consists of repairing, irrespective of the character of the vessel or boat.

Returns too imperfect for tabulation were received from a few shipbuilders. It is believed that the omission of the reports from the delinquent establishments has but slight effect on the totals for the United States. The principal omission occurs in the state of Pennsylvania.

Owing to differences in the forms of inquiry and in the method of collection and classification, it is not practicable to make true comparisons of the data reported in answer to all the questions used at the censuses of 1880 and 1890. The statistics for 1890 include the operations of the United States navy yards located in Brooklyn, N. Y., Mare Island, Cal., Norfolk, Va., and Portsmouth, N. H. The statistics for these navy yards are shown in the statement on the following page.

MANUFACTURING INDUSTRIES.

UNITED STATES NAVY YARDS, SHIPBUILDING: 1890.

Number of establishments reporting.....	4
Capital, direct investment.....	\$26,130,182
Average number of employés.....	2,668
Total wages.....	\$1,750,028
Cost of materials used.....	\$103,863
Products:	
Iron and steel vessels:	
Number.....	13
Tonnage.....	24,956
Value.....	\$1,705,857
Boats:	
Number.....	50
Value.....	50,000
Masts and spars:	
Value.....	20,000
Repairs:	
Value.....	500,848
Total value.....	2,276,705

The figures presented in the above statement include in some instances capital and expenses that do not pertain strictly to shipbuilding.

The operations of the United States navy yards were not included in the report for 1880; therefore they are omitted from the totals presented in the following comparative summary:

COMPARATIVE SUMMARY, SHIPBUILDING: 1880 AND 1890.

ITEMS.	1880	1890
Number of establishments reporting	2,188	1,006
Capital, direct investment.....	\$20,970,874	\$27,202,802
Miscellaneous expenses.....	(a)	\$1,392,551
Average number of employés (aggregate).....	21,345	23,266
Total wages.....	\$12,713,813	\$14,278,819
Officers, firm members, and clerks:		
Average number.....	(b)	1,123
Total wages.....	(b)	\$1,194,870
All other employés:		
Average number.....	(b)	22,143
Total wages.....	(b)	\$13,083,040
Cost of materials used.....	\$10,730,358	\$16,521,240
Value of products.....	\$36,800,327	\$38,065,410

a Not reported.

b Not reported separately.

From the above it appears there has been a decrease of 1,182 in the number of establishments, while the capital employed in the industry has increased \$6,283,018, or 29.95 per cent, since 1880. The concentration of the industry is indicated by the increase of 136.99 per cent in the average number of employés per establishment as well as by the fact that the output from 1,006 establishments in 1890 exceeds that from 2,188 establishments in 1880 by 3.44 per cent.

The schedule of inquiry did not specify the kind of tonnage to be reported, therefore registered, gross, and net tons were reported indiscriminately, and can not be separated. Taking the figures as reported in Table 1, it appears that the average tonnage per vessel built and the average value per ton were as follows at the censuses of 1880 and 1890:

AVERAGE TONNAGE PER VESSEL AND AVERAGE VALUE PER TON, SHIPBUILDING: 1880 AND 1890.

CLASSES.	AVERAGE TONNAGE PER VESSEL.		AVERAGE VALUE PER TON.	
	1880	1890	1880	1890
Iron and steel vessels.....	407.87	1,408.78	\$162.58	\$63.17
Wooden vessels.....	235.09	321.07	30.01	38.80
Canal boats.....	103.74	140.29	26.08	12.50

The number of iron and steel vessels built has increased from 67 to 88, while the average tonnage per vessel has increased 940,91 tons. The number of wooden vessels built has decreased from 1,705 to 995, and the average tonnage per vessel increased 86.88 tons. A decrease of 373 appears in the number of canal boats built, while the increase in the average tonnage per vessel is 45.55 tons.

A great increase appears for the boat building industry, the number built in 1890 being 18,689, valued at \$1,392,084, an average of \$74.49 for each boat, as compared with 8,026 boats valued at \$876,999, an average of \$109.27 at the census of 1880.

In comparing the quantities reported in Table 1, presenting the various classes of materials used, the fact should be noted that the quantity of iron and steel stated for 1890 does not include the weight of boilers and machinery.

The quantity of lumber used has increased from 179,873,966 feet to 191,574,429 feet, or 6.50 per cent, the increase occurring in hard pine and varieties included in the column "All other lumber", the quantity of white pine and oak showing a decrease.

The proportionate cost of materials of the total value of product was 53.63 per cent in 1880 and 43.40 per cent in 1890.

The results of the differences in the form of inquiry previously referred to are most apparent in the statistics of capital and employés and wages. The form of question used at the census of 1880 respecting capital was as follows: "Capital (real and personal) invested in the business". The census inquiry of 1890 was more in detail, and comprehended all the property or assets strictly pertaining to a manufacturing business, whether such property was owned, borrowed, or hired.

The totals for the various subheads into which the inquiry of 1890 is divided are given in the following statement, with the proportion the amount reported for each is of the \$53,393,074 capital directly invested in the entire industry:

ITEMS OF CAPITAL, DIRECT INVESTMENT, AND PERCENTAGE FOR EACH OF THE CORRESPONDING TOTALS,
SHIPBUILDING: 1890.

ITEMS.	Amount of capital, direct investment.	Per cent of total capital of direct investment.
Capital, direct investment, aggregate.....	\$53,393,074	\$100.00
Plant, total value.....	39,870,665	74.07
Land	14,294,878	26.77
Buildings.....	10,170,301	19.05
Machinery, tools, and implements.....	15,405,486	28.85
Live assets, total value.....	13,522,409	25.33
Raw materials	2,460,018	4.03
Stock in process.....	3,110,265	5.84
Finished products on hand	1,876,033	3.51
Cash, bills and accounts receivable, and sundries not elsewhere reported.	6,061,093	11.35

In order to obtain the aggregate amount of capital employed in the industry it is necessary to add to the amount of direct investment shown in the foregoing statement the value of property used in the business but held in tenancy; the value of such hired property used in the shipbuilding industry is ascertained to be \$2,950,055, which makes a total capital of \$56,343,129. Statistics concerning the capital invested in the different branches of the industry will be found in Tables 3, 4, 5, and 6 accompanying this report.

The questions respecting employés and wages used at the Tenth Census called only for "The greatest number of hands employed at any one time during the year", also "The average number of hands employed", classified as males above 16 years, females above 15 years, and children, with the total amount of wages paid during the year. The form of inquiry used at the Eleventh Census was as follows: (1) "Operatives, engineers, and other skilled workmen, overseers, foremen, or superintendents (not general superintendents or managers)"; (2) "Officers or firm members"; (3) "Clerks"; (4) "Watchmen, laborers, teamsters, and other unskilled workmen"; (5) "Pieceworkers", not included in the foregoing. The questions required a statement of the average number of males above 16 years, females above 15 years, and children, respectively, employed during the year in each class; also the actual amount of wages paid to each number. A statement was also required showing the various rates of wages per week, the average number of males, females, and children, respectively, employed at each rate exclusive of those reported as employed on piecework, and the actual term of operation for the establishment reporting.

The wage statistics compiled from the reports obtained are stated in detail in Table 7.

MANUFACTURING INDUSTRIES.

In Table 2 the 5 classes of employés which have been described are grouped, "Officers, firm members, and clerks" constituting 1 group. In this group there are 1,123 employés, or 4.33 per cent of the total number, receiving \$1,194,870 wages, or 7.45 per cent of the total wages. All other employés receiving wages according to time are shown in the second group; of these there are 23,680, or 91.31 per cent of the total number, receiving \$14,241,585 in wages, or 88.85 per cent of the total. Those operatives paid by the piece or according to quantity of production are shown in the third group; of these there are 1,131, or 4.36 per cent of the total, to whom \$592,392 was paid as wages, or 3.70 per cent of the total wages.

At the census of 1880, 21,338 male employés were reported for the shipbuilding industry, constituting 99.97 per cent of all employés, as compared with 25,740, or 99.25 per cent of the total reported for 1890, which includes United States navy yards. While no females are reported for 1880, there are 20 shown for 1890. Of these 1 is reported as an officer or firm member, 10 as clerks, 7 as skilled employés, and 2 as pieceworkers. In 1880, 7 children were reported, as compared with 174 for 1890.

The following statement shows the average number of males above 16 years, females above 15 years, and children, including officers, firm members, and clerks, but not pieceworkers, reported for the entire industry, distributed at specified weekly rates of wages:

AVERAGE NUMBER OF MALES, FEMALES, AND CHILDREN, INCLUDING OFFICERS, FIRM MEMBERS, AND CLERKS, BUT NOT PIECEWORKERS, EMPLOYED AT SPECIFIED WEEKLY RATES OF WAGES, SHIPBUILDING: 1890.

WEEKLY RATES OF WAGES.	AVERAGE NUMBER OF EMPLOYEES.		
	Males above 16 years.	Females above 15 years.	Children.
Total.....	24,611	18	174
Under \$5.....	595	1	189
\$5 and over but under \$6.....	359	3	6
\$6 and over but under \$7.....	507	5	.....
\$7 and over but under \$8.....	1,482	3	.....
\$8 and over but under \$9.....	1,538	2	.....
\$9 and over but under \$10.....	2,363	1	.....
\$10 and over but under \$12.....	3,060	.....	.....
\$12 and over but under \$15.....	5,330	2	.....
\$15 and over but under \$20.....	7,178	.....	.....
\$20 and over but under \$25.....	1,505	.....	.....
\$25 and over	544	1	.....

No preceding census inquiry has comprehended data relating to cost of manufacture other than statistics of wages and materials.

The inquiry at the Eleventh Census was designed to embrace the entire cost of production other than allowance for depreciation of plant and interest on capital. To enable such a presentation to be made a series of questions pertaining to miscellaneous expenses were included in the schedule of inquiry. The data furnished in answer to these questions are given in detail in Table 2.

The difference between the cost and the value shown must not be taken as indicating the net profit or earnings for capital, because these statistics contain no information relative to cost of selling, mercantile losses, or depreciation of plant. The census inquiry was intended simply to ascertain the relation which capital, expenses, wages, and cost of materials bear to the value at the works of the products of manufacturing industry, excluding all cost or expense pertaining to the mercantile portion of the business.

In Tables 3, 4, 5, and 6 the data reported by shipbuilding establishments are distributed to the 4 branches of the industry according to the value of the principal products.

The proportion in the whole industry of the data for each branch under the principal heads of the inquiry used at the Eleventh Census is shown in the following statement:

PERCENTAGE THE SEVERAL ITEMS REPORTED FOR EACH BRANCH OF SHIPBUILDING IS OF THE TOTALS OF THE CORRESPONDING ITEMS FOR THE ENTIRE INDUSTRY: 1890.

ITEMS.	Iron and steel ves- sels.	Wooden vessels.	Boats, masts, and spars.	Repairing of vessels.
Capital, direct investment	63.49	16.72	9.61	10.18
Miscellaneous expenses	39.22	84.64	7.91	18.28
Average number of employés.....	41.52	31.51	8.47	18.50
Total wages	41.05	28.98	8.68	21.29
Cost of materials used.....	39.22	88.80	6.80	15.09
Value of products	37.69	35.24	7.84	19.28

MATERIALS USED.

The book accounts kept by most shipbuilders do not readily show the quantity or the cost of each class of material as called for by the census schedule, so that the classified data shown in Table 2 should only be accepted as indicating in a general way the relative quantity and cost of the respective classes of materials, as compared with the total cost of all materials used.

This relative cost is indicated by a distribution by amount and percentage of the principal classes, as follows:

COST OF DIFFERENT MATERIALS AND THEIR PERCENTAGES OF COST OF ALL MATERIALS, SHIPBUILDING: 1890.

ITEMS.	Cost.	Percentage of total cost.
Total cost of all materials	\$16,925,100	100.00
Lumber, including wooden knees	5,095,894	35.43
Metal.....	4,872,074	28.70
Boilers and machinery.....	2,018,856	17.22
Cordage.....	309,270	1.83
Blocks.....	74,927	0.44
Duck	141,319	0.83
Painting	332,680	1.96
Oakum and pitch	227,994	1.35
Masts and spars (not made in yard).....	204,365	1.21
Fittings and furniture (not made in yard)	461,245	2.72
All other materials	1,301,475	8.22

Table 1, appended, is a comparative statement of the shipbuilding industry in entirety by states and territories for the census years 1880 and 1890. Table 2 is a detailed statement showing the statistics for the entire industry as reported at the census of 1890. Tables 3, 4, 5, and 6 present the statistics for the 4 branches of shipbuilding, separately and in the following order: (1) "Iron and steel vessels"; (2) "Wooden vessels"; (3) "Boats, masts, and spars"; (4) "Repairing". As previously explained, the reports have been assigned to the different classes according to the product of chief value shown by each return; therefore the totals for the respective classes do not represent the full value of the product of each class.

Table 7 is a presentation of the statistics of employés and wages for the entire industry. It shows the employés classified as (1) "Officers and firm members"; (2) "Clerks"; (3) "Operatives and skilled"; (4) "Unskilled", and their further division by "Males above 16 years", "Females above 15 years", and "Children", with the total wages paid to each class and the average weekly earnings per employé by state totals. It also shows the average number of pieceworkers and their total wages, and finally the weekly rates of wages paid and the average number of employés, males, females, and children at each rate, not including pieceworkers. The number of employés reported is the average number employed during the year, that is, the average number having continuous employment for the full time reported by individual establishments. Upon this basis the computations are made to obtain the "Average weekly earnings". The average number of employés reported for each establishment is multiplied by the number of weeks the establishment was in operation; the result is the number of weeks required for 1 employé to perform the labor. Aggregating such results of individual reports, the number of weeks required for 1 employé to perform the entire labor is obtained. This number, used as a divisor for the total wages reported, produces the true average weekly earnings.

MANUFACTURING INDUSTRIES.

TABLE I.—COMPARATIVE STATEMENT, SHIPBUILDING, BY STATES AND TERRITORIES: 1880 AND 1890.

STATES AND TERRITORIES.	Year.	Number of estab- lish- ments report- ing.	Capital. (a)	AVERAGE NUMBER OF EMPLOYEES AND TOTAL WAGES.		Total cost of all materials.	QUANTITIES OF PRINCIPAL MATERIALS USED.		
				Employés.	Wages.		Iron and steel. (b) (Pounds.)	Yellow metal and brass. (Pounds.)	Duck. (Yards.)
The United States.....	1880	2,188	\$20,970,874	21,345	\$12,713,813	\$19,736,358	125,701,922	7,669,820	4,084,404
	d1890	1,000	27,262,892	23,266	14,278,819	10,521,246	147,954,761	2,999,289	641,791
Arkansas.....	1880	3	2,500	25	3,600	21,700	176,000	3,100	700
California.....	1880	62	1,806,923	534	589,504	959,349	2,002,656	1,058,730	151,453
	1890	32	1,953,198	1,482	1,213,989	1,212,671	9,510,000	1,140,308	47,782
Connecticut.....	1880	94	334,300	500	256,849	430,425	1,042,156	60,800	85,870
	1890	20	564,941	652	376,122	535,093	2,342,000	66,550	69,255
Delaware.....	1880	18	935,200	1,576	900,322	964,275	13,045,744	135,800	65,602
	1890	11	1,745,213	1,802	899,151	836,979	9,894,000	16,050	25,035
District of Columbia.....	e1880								
	1890	4	15,575	14	8,410	9,040	44,000	500	500
Florida.....	1880	48	30,750	46	33,580	43,250	138,160	800	19,520
	1890	16	93,156	76	38,621	21,702	80,000	4,235	2,325
Georgia.....	1880	2	3,000	4	2,250	13,700	90,000	1,200	550
	1890	4	156,100	118	61,134	45,716	140,000	4,000	.....
Illinois.....	1880	28	457,000	465	247,395	492,010	1,130,400	7,250	761,350
	1890	10	638,439	331	187,021	148,127	414,000	10,000	100
Indiana.....	1880	23	194,250	312	211,736	529,810	3,173,800	47,900	28,800
	1890	11	371,860	551	253,733	204,229	1,322,000	.....	23,000
Iowa.....	1880	1	25,000	75	37,000	62,000	130,000	4,000	1,000
	1890	5	38,850	48	26,026	22,820	10,000	5,000	307
Kentucky.....	1880	11	88,450	157	92,171	126,550	560,699	3,700	2,250
	1890	29	53,511	88	41,577	31,675	174,000	8,000	2,900
Louisiana.....	1890	38	152,100	218	113,526	162,405	362,230	5,100	85,090
	1880	13	368,218	192	110,555	71,259	200,000	76,600	200
Maine.....	1880	879	811,750	1,997	838,559	1,935,857	9,081,416	467,956	601,208
	1890	85	1,027,750	1,539	843,715	1,423,175	6,873,000	117,889	181,940
Maryland.....	1880	136	1,000,535	1,178	657,780	884,290	3,299,858	514,554	408,040
	1890	34	1,315,262	1,075	640,342	737,457	2,274,000	54,100	4,100
Massachusetts.....	1880	276	1,765,450	1,328	804,571	1,173,640	2,955,005	1,044,611	423,275
	1890	147	1,239,098	1,188	865,028	890,405	9,252,000	132,725	45,041
Michigan.....	1880	72	476,775	1,537	745,933	1,080,985	9,479,730	48,300	147,770
	1890	62	8,266,472	2,284	1,267,102	2,300,299	21,415,500	15,775	61,320
Minnesota.....	1880	1	10,000	16	8,000	2,500	.....	300	7,419
	1890	20	521,373	319	178,608	322,412	8,486,000	.....	.....
Mississippi.....	1880	3	2,500	4	2,860	1,950	11,600	.....	610
	1890	9	8,554	47	15,742	7,405	28,000	.....	.....
Missouri.....	1880	14	247,900	293	196,005	313,392	2,421,260	8,000	4,600
	1890	5	125,625	357	150,224	145,707	1,076,000	.....	250
New Hampshire.....	1880	15	15,330	26	12,243	14,360	19,300	.....	10,900
	f1890								
New Jersey.....	1880	93	943,070	930	548,807	649,194	2,455,048	211,958	87,940
	1890	62	2,165,104	1,186	890,789	1,140,452	4,770,000	287,750	32,102
New York.....	1880	457	3,944,100	4,601	2,907,120	4,055,637	13,292,176	3,072,264	811,130
	1890	216	4,281,884	3,598	2,615,756	2,267,391	10,030,000	486,108	43,108
North Carolina.....	1880	11	15,400	88	19,256	32,075	124,400	2,600	1,300
	1890	16	76,978	138	50,484	30,396	276,000	10,300	3,400
Ohio.....	1880	54	423,050	773	414,360	985,960	7,635,020	74,900	157,750
	1890	44	2,050,811	2,822	1,521,212	1,750,939	30,448,000	53,850	18,584
Oregon.....	1880	14	63,300	85	77,150	124,400	420,700	5,200	3,210
	1890	14	305,220	208	135,222	119,036	214,000	1,950	10,700
Pennsylvania.....	1880	125	5,707,731	8,298	2,279,629	3,610,307	48,810,021	763,487	639,580
	1890	82	2,443,063	2,022	1,215,876	1,750,582	25,407,000	454,820	50,480
Rhode Island.....	1880	22	227,700	318	194,682	266,858	952,058	65,000	4,100
	1890	15	816,665	200	133,453	68,900	224,000	9,220	3,700
South Carolina.....	1880	16	40,300	94	55,900	55,250	220,000	900	16,080
	1890	8	128,020	83	47,286	46,752	502,000	30,450	.....
Texas.....	1880	16	23,350	43	30,170	40,340	120,500	14,750	8,180
	1890	9	0,010	31	11,788	12,808	41,500	40	400

^a Value of hired property is not included in the capital reported for 1890, because it was not included in the report for 1880.^b Figures for 1890 do not include weight of boiler and machinery.^c For purposes of comparison the reports of the United States navy yards, located in Brooklyn, N. Y.; Mare Island, Cal.; Norfolk, Va., and Portsmouth, N. H., are not included in the figures for 1890, as the operations of United States navy yards were not included in the report for 1880.^d See note ^b at end of table.^e None reported in 1880.^f None reported in 1890.

SHIPBUILDING.

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TABLE I.—COMPARATIVE STATEMENT, SHIPBUILDING, BY STATES AND TERRITORIES: 1880 AND 1890—Continued.

STATES AND TERRITORIES.	Year.	QUANTITIES OF PRINCIPAL MATERIALS USED—continued.						
		Manilla rope. (Pounds.)	Hemp cordage. (Pounds.)	Knees. (Number.)	Lumber.			
					Total. (Feet.)	Hard pine. (Feet.)	White pine. (Feet.)	White oak. (Feet.)
The United States.....	1880	1,990,163	1,125,131	97,192	179,873,066	80,327,372	47,500,048	69,701,300
	1890	1,077,045	412,283	79,726	191,574,429	61,694,253	24,571,343	57,706,487
Arkansas.....	1880	900	.....	.....	171,000	32,000	24,000	115,000
	1890	.....	.....	.....	.....	.....	.....	.....
California.....	1880	73,810	36,880	1,621	6,580,000	4,363,146	390,470	196,000
	1890	89,768	2,000	2,784	7,913,485	.....	.....	72,291
Connecticut.....	1880	38,981	41,142	3,320	4,793,450	2,777,000	601,080	722,900
	1890	58,757	22,174	6,445	10,700,088	0,381,900	545,200	1,611,000
Delaware.....	1880	67,097	74,804	4,651	6,411,800	1,966,500	1,886,500	2,217,800
	1890	41,710	31,360	1,570	4,457,911	1,984,597	945,049	968,660
District of Columbia.....	1880	.....	.....	30	184,330	137,730	22,000	14,000
	1890	.....	.....	.....	.....	.....	.....	10,600
Florida.....	1880	6,530	200	460	176,400	95,100	.....	38,800
	1890	4,300	1,225	.....	583,700	426,000	10,300	42,500
Georgia.....	1880	750	.....	.....	117,000	95,000	8,300	11,000
	1890	250	1,000	1,701	743,600	558,000	30,000	44,000
Illinois.....	1880	2,580	.....	45	5,197,300	.....	1,234,500	3,631,800
	1890	200	.....	575	2,347,158	.....	388,710	1,476,048
Indiana.....	1880	36,300	.....	.....	7,046,400	.....	1,500,100	4,878,300
	1890	21,000	700	315	5,675,700	1,118,000	603,300	1,371,400
Iowa.....	1880	1,250	.....	.....	460,000	.....	160,000	300,000
	1890	.....	.....	.....	511,955	8,000	302,011	120,176
Kentucky.....	1880	2,350	.....	.....	3,291,000	2,500	1,362,500	1,451,000
	1890	420	3,500	.....	718,760	.....	182,500	397,500
Louisiana.....	1880	7,120	680	40	423,600	233,100	.....	72,500
	1890	1,200	1,545	734	1,247,042	785,820	.....	157,874
Maine.....	1880	446,862	373,712	26,560	25,866,351	13,882,112	3,064,208	5,193,710
	1890	278,289	134,234	20,405	27,130,029	15,820,822	2,236,891	3,495,990
Maryland.....	1880	118,920	151,600	3,440	10,536,400	4,500,700	3,480,200	2,376,500
	1890	2,000	1,100	2,420	6,050,220	2,318,000	665,700	1,503,000
Massachusetts.....	1880	94,235	125,000	8,750	6,958,745	2,107,760	2,005,860	1,877,050
	1890	65,026	11,815	9,492	10,507,747	4,389,690	2,448,289	2,238,002
Michigan.....	1880	84,320	19,050	6,383	8,636,200	.....	2,482,600	6,122,600
	1890	195,561	4,000	7,888	20,243,023	1,026,000	2,806,082	21,200,058
Minnesota.....	1880	.....	.....	185	1,147,800	455,100	248,000	294,000
	1890	27,588	1,000	.....	.....	.....	.....	155,100
Mississippi.....	1880	430	150	.....	19,000	9,000	.....	8,000
	1890	120	.....	240	297,700	221,900	.....	1,000
Missouri.....	1880	4,150	.....	.....	3,836,500	.....	978,000	2,165,500
	1890	.....	.....	.....	2,847,800	.150,000	602,200	2,000,000
New Hampshire.....	1880	.....	.....	70	74,000	10,000	30,000	16,400
	1890	.....	.....	.....	.....	.....	.....	8,000
New Jersey.....	1880	47,687	58,310	5,020	6,270,900	1,827,800	1,605,300	2,274,900
	1890	101,185	144,055	4,788	14,321,420	6,076,505	1,710,411	2,686,000
New York.....	1880	207,121	34,477	23,103	35,905,020	7,652,800	10,461,000	14,535,900
	1890	14,222	3,975	9,888	32,488,646	10,241,862	5,306,976	7,013,004
North Carolina.....	1880	1,560	.....	310	270,000	232,000	13,000	25,000
	1890	530	1,450	410	957,475	568,000	9,000	92,000
Ohio.....	1880	100,350	16,300	2,518	10,160,500	40,000	1,937,000	7,793,500
	1890	80,350	550	1,380	10,421,433	558,000	2,120,087	5,694,546
Oregon.....	1880	8,500	2,080	125	836,000	.....	312,500	12,500
	1890	5,000	10,000	2,620	2,798,050	.....	292,150	823,500
Pennsylvania.....	1880	523,520	102,400	6,055	24,321,000	2,089,300	10,960,800	7,008,900
	1890	90,781	770	1,140	5,020,773	805,860	1,889,559	1,202,854
Rhode Island.....	1880	5,400	.....	1,330	726,900	185,000	178,800	190,600
	1890	6,553	.....	590	419,595	105,700	78,350	98,175
South Carolina.....	1880	2,810	.....	436	680,100	584,000	10,400	40,100
	1890	6,700	.....	770	1,173,000	994,500	22,000	65,000
Texas.....	1880	13,840	18,590	1,600	459,500	278,100	8,800	167,100
	1890	4,600	2,830	.....	251,025	80,950	6,000	7,875

a None reported in 1890.

MANUFACTURING INDUSTRIES.

TABLE I.—COMPARATIVE STATEMENT, SHIPBUILDING, BY STATES AND TERRITORIES: 1880 AND 1890—Continued.

STATES AND TERRITORIES.	Year.	Total value.	PRODUCTS.												Masts, spars, repairing, and all other products. (Value.)		
			Vessels.						Canal boats.			Other boats.					
			Iron and steel.			Wooden.			Num- ber built.	Ton- nage.	Value.	Num- ber built.	Ton- nage.	Value.			
			Number built.	Ton-nage.	Value.	Number built.	Ton-nage.	Value.									
The United States	1880	\$36,800,327	67	31,347	\$5,096,293	1,705	400,824	\$12,380,446	643	66,707	\$1,730,975	8,026	\$876,999		\$16,697,614		
	1890	38,065,410	88	123,973	11,550,846	995	320,358	12,429,349	270	40,309	503,800	18,689	1,392,084		12,189,331		
Arkansas	1880	28,000				3	300	28,000									
	1890																
California	1880	1,797,039				21	7,361	770,696				200	57,545		900,398		
	1890	3,148,683	5	15,105	1,510,576	83	11,225	510,014				593	50,725		1,047,368		
Connecticut	1880	767,660				52	11,473	413,009				280	37,200		317,451		
	1890	1,053,301				61	21,947	703,080				255	45,085		244,227		
Delaware	1880	2,162,503	22	8,925	1,262,800	33	22,198	352,169				100	18,437		529,097		
	1890	2,044,313	14	7,208	1,350,133	10	10,850	338,270				248	18,778		328,132		
District of Columbia	1880					7	675	8,000				40	1,900		18,855		
	1890	28,755															
Florida	1880	85,050				13	217	25,000				45	16,050		44,000		
	1890	68,020				26	816	21,890				71	4,870		41,200		
Georgia	1880	17,000				2	539	17,000							97,300		
	1890	126,300				14	2,450	29,000									
Illinois	1880	892,093				10	1,300	120,000	1	88	8,300	85	9,050		745,743		
	1890	421,815				14	398	76,567				1,111	71,750		273,498		
Indiana	1880	810,055				64	20,524	726,680				52	3,100		80,875		
	1890	551,640				37	10,438	498,000				826	12,840		40,800		
Iowa	1880	112,000				2	860	70,000				67	2,110		42,000		
	1890	73,144				32	555	24,465							46,560		
Kentucky	1880	249,015				23	2,130	86,215				25	1,000		161,800		
	1890	95,545				8	754	10,050				1,915	46,300		39,195		
Louisiana	1880	343,525				36	1,231	105,525				80	15,600		222,400		
	1890	220,645				35	1,555	62,780	30	180	1,600	94	3,574		101,691		
Maine	1880	2,000,846				88	41,396	2,174,650				970	53,818		681,378		
	1890	2,818,565				73	48,402	2,570,373				926	65,181		183,011		
Maryland	1880	1,788,630	1	55	17,500	70	3,174	218,760	60	4,270	84,000	133	45,000		1,423,370		
	1890	1,737,074	2	9,180	918,900	14	7,028	200,350				216	52,526		565,898		
Massachusetts	1880	2,281,666				39	5,605	301,655				3,765	186,727		1,703,284		
	1890	2,248,647				114	20,720	1,003,570	3	400	16,000	5,196	208,791		930,286		
Michigan	1880	2,034,636	3	1,533	387,500	66	14,376	1,002,550				210	13,117		631,469		
	1890	4,710,108	5	13,000	1,180,000	80	48,532	2,905,035				1,268	65,078		549,095		
Minnesota	1880	15,000				8	875	20,500	3	900	7,000	669	20,010		15,000		
	1890	542,440	6	6,062	450,000										35,020		
Mississippi	1880	5,500				3	83	3,500							2,000		
	1890	26,425				7	327	6,000				88	3,000		17,425		
Missouri	1880	565,187	7	2,740	241,000	10	711	117,487							206,700		
	1890	417,236				4	232	16,700				128	7,120		394,416		
New Hampshire	1880	80,070										44	4,440		25,030		
	1890																
New Jersey	1880	1,984,620	4	382	75,875	39	6,063	310,230	10	1,010	14,600	134	34,400		940,455		
	1890	2,502,420	6	2,600	385,000	70	25,641	741,707	6	340	15,600	318	48,547		1,401,666		
New York	1880	7,985,044	6	670	89,000	188	25,852	1,686,011	441	49,887	1,370,525	1,221	263,057		4,575,551		
	1890	6,154,488	14	7,182	487,200	149	42,099	863,730	197	34,950	403,800	2,430	352,070		4,047,088		
North Carolina	1880	57,219				8	487	22,650							34,569		
	1890	101,615				12	1,246	28,100	1	80	1,000	62	12,126		60,389		
Ohio	1880	1,552,210				64	25,121	1,125,300	1	11	2,300	91	18,400		406,210		
	1890	8,804,838	16	28,780	2,592,000	52	24,261	731,443	13	1,280	29,650	673	31,700		410,985		
Oregon	1880	206,500				19	2,162	176,600							20,900		
	1890	320,715				18	3,880	268,100							38,810		
Pennsylvania	1880	6,689,470	24	17,033	3,022,618	656	176,768	1,416,190	122	10,711	237,450	318	47,888		1,965,324		
	1890	3,239,770	15	32,187	2,488,037	11	22,000	168,525	14	1,570	17,050	341	38,601		532,407		
Rhode Island	1880	517,041				17	379	120,000				68	27,610		360,431		
	1890	230,026	4	1,500	120,000	4	205	22,500				39	9,082		88,044		
South Carolina	1880	144,000				27	1,815	92,900							51,100		
	1890	180,130				44	3,875	111,000	2	500	10,000	15	4,950		60,180		
Texas	1880	77,780				16	758	55,780							22,000		
	1890	29,777				4	25	1,250				223	20,171		8,356		

SHIPBUILDING.

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TABLE 1.—COMPARATIVE STATEMENT, SHIPBUILDING, BY STATES AND TERRITORIES: 1880 AND 1890—Continued.

STATES AND TERRITORIES.	Year.	Number of estab- lish- ments report- ing.	Capital.	AVERAGE NUMBER OF EMPLOYÉS, AND TOTAL WAGES.		Total cost of all materials.	QUANTITIES OF PRINCIPAL MATERIALS USED.		
				Employés.	Wages.		Iron and steel. (Pounds.)	Yellow metal and brass. (Pounds.)	Duck. (Yards.)
Vermont.....	1880	3	\$20,700	12	\$4,400	\$9,200	52,000	.....	.....
	1890	3	8,050	14	4,572	2,859	8,000	.....	.....
Virginia.....	1880	65	185,000	146	75,526	74,578	183,125	8,500	9,270
	1890	17	310,726	209	99,694	83,694	283,000	9,500	.....
Washington.....	1880	11	33,000	92	51,298	121,300	519,700	7,000	6,800
	1890	17	155,820	186	97,216	68,885	341,000	150	4,900
West Virginia.....	1880	19	55,000	99	51,510	162,300	389,300	3,200	3,000
	1890	4	21,303	57	17,650	8,252	25,000	.....	.....
Wisconsin.....	1880	24	208,700	474	223,573	268,303	2,231,400	6,500	134,500
	1890	16	544,828	311	205,005	178,351	1,170,650	65	432
All other states.....	#1880	4	26,800	51	26,400	59,100	158,000	21,700	800
	#1890	7	40,000	98	32,016	15,788	62,111	3,000	1,520

^a Includes establishments distributed as follows: Alabama, 1; Kansas, 1; Nebraska, 1; Tennessee, 1.^b Includes establishments distributed as follows: Alabama, 5; Arkansas, 1; Tennessee, 1.

MANUFACTURING INDUSTRIES.

TABLE I.—COMPARATIVE STATEMENT, SHIPBUILDING, BY STATES AND TERRITORIES: 1880 AND 1890—Continued.

STATES AND TERRITORIES.	Year.	QUANTITIES OF PRINCIPAL MATERIALS USED—continued.								
		Manilla rope. (Pounds.)	Hemp cordage. (Pounds.)	Knees. (Number.)	Lumber.					All other kinds. (Feet.)
					Total. (Feet.)	Hard pine. (Feet.)	White pine. (Feet.)	White oak. (Feet.)	All other kinds. (Feet.)	
Vermont.....	1880	1,420	.....	102	184,200	.....	120,400	63,800	.....	.....
	1890	.....	.....	.....	118,000	10,000	10,000	5,000	.....	93,000
Virginia.....	1880	7,240	4,350	931	720,900	408,000	30,300	100,600	7,000	.....
	1890	3,795	28,000	56	1,889,800	1,107,200	1,000	317,700	403,900	.....
Washington.....	1880	6,700	3,800	147	890,000	.....	.....	16,000	874,000	.....
	1890	700	5,000	214	1,712,600	54,000	22,500	32,500	1,603,600	.....
West Virginia.....	1880	6,400	.....	100	3,363,000	.....	2,093,000	1,228,000	42,000	.....
	1890	.....	.....	.....	200,000	20,000	20,000	145,000	15,000	.....
Wisconsin.....	1880	16,020	1,000	1,635	4,848,200	.....	1,081,100	3,755,600	11,500	.....
	1890	330	.....	973	4,047,152	5,000	750,958	3,035,594	256,500	.....
All other states.....	1880	980	12	187,000	88,000	48,000	101,000	11,750
	1890	500	446,822	399,872	95,200

SHIPBUILDING.

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TABLE 1.—COMPARATIVE STATEMENT, SHIPBUILDING, BY STATES AND TERRITORIES: 1880 AND 1890—Continued.

MANUFACTURING INDUSTRIES.

TABLE 2.—DETAILED STATEMENT, SHIPBUILDING,

STATES AND TERRITORIES.	Number of estab- lish- ments report- ing.	Value of hired property.	CAPITAL.				
			Direct investment.				
			Aggregate.	Total.	Land.	Buildings.	
1 The United States.....	1,010	\$2,950,055	\$53,303,074	\$39,870,605	\$14,294,878	\$10,170,201	\$15,405,486
2 Alabama.....	5	4,910	37,750	33,500	600	5,700	27,300
3 California.....	83	92,100	6,803,308	5,800,480	424,222	1,706,053	3,706,205
4 Connecticut.....	29	52,000	504,941	248,012	85,700	61,400	100,012
5 Delaware.....	11	37,100	1,745,213	917,850	309,700	282,900	325,250
6 District of Columbia.....	4	600	15,575	8,375	5,500	1,600	1,275
7 Florida.....	16	8,500	93,156	86,675	26,400	45,820	14,455
8 Georgia.....	4	8,500	156,100	133,100	5,500	8,100	110,500
9 Illinois.....	10	6,800	638,439	500,234	309,113	65,450	35,671
10 Indiana.....	11	3,850	271,860	103,545	53,850	26,400	23,205
11 Iowa.....	5	.....	38,850	34,700	3,175	8,375	23,150
12 Kentucky.....	29	12,500	53,511	46,535	15,850	10,650	20,085
13 Louisiana.....	13	13,000	368,218	280,088	50,925	22,525	197,638
14 Maine.....	85	100,825	1,027,750	243,965	70,900	62,175	104,800
15 Maryland.....	34	464,270	1,315,262	500,975	134,050	29,480	346,445
16 Massachusetts.....	147	300,285	1,239,998	300,755	165,135	91,855	143,265
17 Michigan.....	62	225,400	3,266,472	944,189	287,500	440,418	210,271
18 Minnesota.....	20	20,600	521,373	47,095	7,900	7,400	32,095
19 Mississippi.....	9	600	8,554	6,706	2,200	1,410	3,186
20 Missouri.....	5	3,450	125,625	113,425	42,000	12,075	59,350
21 New Jersey.....	62	514,200	2,165,104	1,325,929	484,775	214,695	626,450
22 New York.....	217	806,815	16,481,649	14,545,320	7,504,833	3,210,840	3,730,666
23 North Carolina.....	16	18,100	76,978	50,775	16,205	17,730	22,750
24 Ohio.....	44	33,600	2,950,811	1,013,610	620,245	351,805	635,500
25 Oregon.....	14	1,400	305,220	252,220	129,050	33,970	88,300
26 Pennsylvania.....	32	55,750	2,443,063	1,488,165	677,025	292,625	518,515
27 Rhode Island.....	15	25,000	316,665	161,780	47,500	24,200	93,080
28 South Carolina.....	8	17,500	128,020	48,200	20,500	15,400	12,300
29 Texas.....	9	800	9,610	6,210	985	2,400	2,625
30 Vermont.....	3	150	8,950	4,550	900	2,300	1,350
31 Virginia.....	18	81,000	6,388,976	6,302,701	1,048,580	1,831,830	3,422,291
32 Washington.....	17	17,500	155,620	123,340	3,680	71,310	48,850
33 West Virginia.....	4	500	21,303	15,475	2,800	8,050	4,025
34 Wisconsin.....	10	6,850	544,828	424,070	168,000	140,300	115,170
35 All other states (a).....	3	5,000	2,944,307	2,044,107	1,307,000	907,500	570,607

^a Includes states having less than 3 establishments, in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Arkansas, 1; New Hampshire, 1; Tennessee, 1.

BY STATES AND TERRITORIES: 1890.

CAPITAL—continued.					MISCELLANEOUS EXPENSES.							
Direct investment—Continued.												
Live assets.												
Total.	Raw materials.	Stock in process.	Finished products on hand.	Cash, bills and accounts receivable, and all sundries not elsewhere reported.	Total.	Rent paid for tenancy.	Taxes.	Insurance.	Repairs, ordinary, of buildings and machinery.	Amount paid to contractors.	Interest paid on cash used in the business.	
\$13,522,409	\$2,469,018	\$3,116,205	\$1,870,033	\$6,061,093	\$1,392,551	\$215,343	\$116,785	\$05,735	\$271,200	\$214,205	\$90,289	\$388,988
4,250	1,000	450	2,200	1,085	895	130	300	117,528	15,215	189,012	200	2
966,828	295,161	108,446	52,570	420,651	378,104	6,581	6,058	4,202	36,448	117,528	189,012	3
816,929	100,025	54,850	28,075	43,979	20,463	8,180	2,285	2,568	2,075	2,072	6,503	4
827,363	248,015	143,000	75,700	365,648	68,810	2,314	6,885	1,625	27,897	1,400	30,168	5
7,200	350	2,500	1,550	2,800	654	50	24	55	300	225	225	0
6,481	2,020	2,250	430	1,781	2,083	725	478	425	455	7	7	
23,000	5,000	6,000	2,000	10,000	9,384	500	1,000	834	1,050	3,500	2,500	8
138,205	58,707	13,868	18,505	57,087	11,723	530	3,682	1,227	787	2,860	2,057	9
268,315	55,525	145,200	1,200	66,890	7,722	336	2,522	2,224	1,885	600	305	10
4,150	3,100	800	250	3,997	3,997	317	165	2,200	1,300	15	11	
6,976	2,550	1,427	96	2,903	3,157	986	571	20	805	775	12	
88,130	14,367	22,900	9,090	41,773	13,227	801	1,417	1,200	9,700	10	13	
783,791	140,520	331,492	140,825	170,054	109,032	8,360	5,780	7,721	3,601	69,027	4,824	14
805,287	51,590	122,105	451,775	179,757	92,077	28,417	11,180	15,554	10,180	14,700	12,550	15
840,248	180,288	285,260	86,852	331,843	71,604	29,414	6,327	5,088	6,400	16,000	7,005	10
2,322,283	315,139	368,921	207,209	1,431,014	97,736	14,180	12,042	7,770	19,038	19,400	25,288	17
473,378	5,415	7,500	455,688	4,775	2,570	1,484	250	166	350	186	125	18
1,758	208	500	300	750	157	45	75	82	82	5	19	
12,200	7,500	3,200	100	1,400	18,067	105	1,125	547	10,030	1,211	6,200	20
839,175	151,554	433,000	69,560	185,061	89,200	48,257	5,209	10,030	21,232	8,261	21	
1,096,310	303,486	278,150	91,733	1,172,041	166,442	58,922	17,152	14,308	31,235	15,840	28,820	22
20,203	4,450	7,150	1,125	7,478	8,423	1,020	751	297	435	150	770	23
1,387,201	63,063	515,340	82,035	675,803	86,986	2,055	9,820	8,055	46,345	1,225	18,877	24
53,000	5,100	17,200	11,700	19,000	9,508	930	1,735	70	5,045	1,000	723	25
954,898	139,220	117,564	15,075	682,140	82,941	4,002	9,748	6,215	20,873	10,400	80,723	26
151,885	48,700	32,725	34,000	41,400	5,271	2,050	902	1,240	450	620	27	
79,820	7,270	27,475	20,000	25,075	11,554	1,112	775	1,212	7,050	1,405	28	
3,400	1,160	1,150	585	584	425	58	17	350	350	29		
4,400	1,200	1,300	2,000	153	10	3	50	65	65	25	30	
86,275	12,295	9,330	5,200	59,460	4,430	712	1,193	201	1,775	25	470	31
32,280	8,600	8,025	15,155	4,900	5,037	900	720	1,211	830	1,307	32	
5,828	1,320	2,260	2,248	2,307	50	797	20	250	250	40	33	
120,758	67,270	5,170	1,250	47,050	11,157	563	3,790	1,820	1,300	1,150	585	34
200	200	.....	.....	450	450	450	.....	.....	.....	.....	3,407	35

MANUFACTURING INDUSTRIES.

TABLE 2.—DETAILED STATEMENT, SHIPBUILDING,

STATES AND TERRITORIES.	AVERAGE NUMBER OF EMPLOYÉS AND TOTAL WAGES.					
	Aggregates.		Officers, firm members, and clerks.			
	Average number.	Total wages.	Males above 16 years.		Females above 15 years.	
			Number.	Wages.	Number.	Wages.
1 The United States	25,934	\$16,028,847	1,112	\$1,188,407	11	\$6,463
2 Alabama	85	25,074	3	750		
3 California	1,792	1,468,080	15	60,146		
4 Connecticut	652	376,122	28	27,904		
5 Delaware	1,802	899,151	41	96,926	2	1,248
6 District of Columbia	14	8,410				
7 Florida	76	38,621	7	3,740		
8 Georgia	118	61,134	6	6,080		
9 Illinois	331	187,021	15	14,722	1	433
10 Indiana	551	253,733	8	6,794		
11 Iowa	48	26,926	3	1,825		
12 Kentucky	88	41,577	26	15,612		
13 Louisiana	192	118,655	17	15,104		
14 Maine	1,539	843,715	86	64,545	3	1,176
15 Maryland	1,075	649,342	32	28,850		
16 Massachusetts	1,188	865,028	112	96,961		
17 Michigan	2,284	1,267,102	92	81,657	1	244
18 Minnesota	319	178,003	11	9,924		
19 Mississippi	47	15,742	2	764		
20 Missouri	367	150,224	11	11,381		
21 New Jersey	1,186	890,789	70	73,499		
22 New York	5,529	3,810,304	232	275,083	3	3,162
23 North Carolina	138	50,484	12	8,496		
24 Ohio	2,822	1,521,212	143	128,967		
25 Oregon	208	135,222	9	7,597		
26 Pennsylvania	2,022	1,915,876	47	76,096		
27 Rhode Island	200	133,453	16	15,980		
28 South Carolina	83	47,286	7	6,300		
29 Texas	31	11,788	2	918		
30 Vermont	14	4,672	2	312		
31 Virginia	510	345,454	15	9,088		
32 Washington	186	97,216	15	12,711		
33 West Virginia	57	17,550	2	700		
34 Wisconsin	311	205,005	25	28,006	1	200
35 All other states	79	61,572				

SHIPBUILDING.

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BY STATES AND TERRITORIES: 1890—Continued.

MANUFACTURING INDUSTRIES.

TABLE 2.—DETAILED STATEMENT, SHIPBUILDING,

STATES AND TERRITORIES.	Aggregate cost.	MATERIALS USED.									
		Lumber.									
		Total.		White oak.		Other oak.		Hard pine.		White pine	
		Feet(board measure).	Cost.	Feet (board measure).	Cost.	Feet (board measure).	Cost.	Feet (board measure).	Cost.	Feet (board measure).	Cost.
1 The United States.....	\$16,925,109	103,630,629	\$5,836,275	57,733,487	\$1,771,966	12,995,872	\$452,826	62,100,453	\$1,043,339	25,031,343	\$865,069
2 Alabama.....	9,403	316,822	4,498	11,200	.590	250	.20	299,872	3,758	.....	.....
3 California.....	1,205,562	8,193,185	261,538	72,291	9,265	362,850	36,253	4,419,846	101,647	390,470	15,992
4 Connecticut.....	535,093	10,700,088	282,456	1,611,600	50,383	343,588	10,402	6,381,900	105,243	545,200	21,854
5 Delaware.....	836,979	4,457,911	138,052	908,680	33,889	208,000	4,795	1,084,597	46,997	945,049	38,481
6 District of Columbia.....	9,910	184,330	5,776	14,000	.580	.....	.....	137,730	3,816	22,000	800
7 Florida.....	21,702	583,700	11,099	11,000	.570	4,300	.320	426,000	6,206	10,300	660
8 Georgia.....	45,716	743,000	17,092	44,000	2,640	12,000	.620	552,000	9,332	30,000	3,000
9 Illinois.....	148,127	2,347,158	76,864	1,476,048	46,014	123,000	4,335	.....	.....	388,710	12,810
10 Indiana.....	204,220	5,675,700	134,088	1,371,400	25,041	1,087,000	39,425	1,116,000	32,845	603,300	18,370
11 Iowa.....	22,820	511,055	14,980	120,176	3,716	70,000	2,100	8,000	840	302,611	8,524
12 Kentucky.....	81,075	718,750	17,838	337,500	7,849	3,000	.00	.....	.....	182,500	5,875
13 Louisiana.....	71,259	1,247,042	33,139	157,874	8,468	56,229	2,721	785,820	15,392	.....	.....
14 Maine.....	1,423,175	27,130,029	764,412	3,495,900	132,248	1,120,248	35,402	15,820,822	417,933	2,230,891	69,128
15 Maryland.....	737,457	6,050,220	163,363	1,508,000	40,852	807,500	17,567	2,318,000	57,501	665,700	28,115
16 Massachusetts.....	890,405	16,607,747	520,391	2,238,092	96,505	1,276,453	53,097	4,389,600	124,813	2,448,280	92,700
17 Michigan.....	2,300,209	20,243,023	685,962	21,200,058	550,008	229,800	7,435	1,026,000	10,847	2,806,082	79,096
18 Minnesota.....	322,412	1,147,800	23,947	284,000	6,403	43,000	1,202	455,100	6,505	248,000	4,828
19 Mississippi.....	7,495	207,700	4,245	1,000	.35	1,500	.60	221,900	2,694	.....	.....
20 Missouri.....	145,707	2,347,800	95,230	2,000,000	70,000	73,500	3,123	150,000	4,500	602,200	17,105
21 New Jersey.....	1,140,452	14,321,420	518,987	2,086,000	105,717	1,928,525	81,903	6,076,505	208,083	1,710,411	68,071
22 New York.....	2,409,835	33,277,046	1,149,418	7,030,004	260,041	1,077,554	78,186	10,341,802	315,269	5,721,976	214,401
23 North Carolina.....	30,306	957,475	16,163	92,000	2,086	22,625	563	508,000	8,431	9,000	360
24 Ohio.....	1,750,939	10,421,433	274,072	5,694,546	146,382	614,300	28,854	558,000	11,503	2,120,087	58,540
25 Oregon.....	119,036	2,798,050	72,578	202,150	11,786	118,200	2,842	.....	.....	312,500	12,500
26 Pennsylvania.....	1,759,582	5,020,773	221,370	1,202,854	40,084	538,000	10,997	805,809	21,976	1,689,550	64,185
27 Rhode Island.....	68,000	410,505	14,181	98,175	3,731	41,700	1,522	105,700	2,944	78,350	3,000
28 South Carolina.....	46,752	1,173,000	30,162	65,000	3,750	91,500	6,800	994,500	17,412	22,000	2,200
29 Texas.....	12,808	251,025	7,221	7,875	.225	4,250	150	80,950	1,974	6,000	430
30 Vermont.....	2,859	118,000	2,104	5,000	200	5,000	150	10,000	250	10,000	500
31 Virginia.....	148,879	2,117,300	57,150	324,700	9,543	268,400	8,943	1,136,700	24,423	91,000	3,630
32 Washington.....	68,885	1,712,000	31,136	32,500	3,300	9,000	944	54,000	1,930	22,500	550
33 West Virginia.....	8,252	200,000	4,980	145,000	2,900	4,000	.80	20,000	600	20,000	600
34 Wisconsin.....	178,351	4,047,152	115,308	3,035,594	89,447	31,000	1,055	5,000	125	750,053	18,568
35 All other states.....	29,638	790,000	21,485	84,000	1,010	303,000	8,310	340,000	9,540	45,000	2,025

SHIPBUILDING.

561

BY STATES AND TERRITORIES: 1890—Continued.

MATERIALS USED—continued.														
Lumber—Continued.												Knees.		
Fir.		Spruce.		Hackmatack.		Cedar.		Cypress.		All other lumber.		Number.	Cost.	
Feet (board measure).	Cost.	Feet (board measure).	Cost.	Feet (board measure).	Cost.	Feet (board measure).	Cost.	Feet (board measure).	Cost.	Feet (board measure).	Cost.			
4,041,533	\$85,023	11,145,280	\$221,861	1,939,420	\$65,018	1,944,890	\$76,989	458,705	\$14,532	16,048,640	\$635,754	70,725	\$150,619	
1,207,000	34,320	365,065	10,911			638,450	24,738		2,000	60	3,506	70	12	42
60,000	2,400	272,200	4,015	190,000	5,275	24,700	1,330	1,000	50	736,313	27,812	2,784	0,509	
		64,797	777			12,000	550	50,000	2,500	1,270,500	20,004	6,445	12,155	
										224,808	25,063	1,570	3,190	
										10,600	520	30	75	
		26,300	596			2,300	79	95,000	2,351	8,500	817	460	550	
				60,000	600					55,600	900	1,701	5,829	
		10,700	835			157,700	6,400			185,000	6,970	575	948	
										648,000	18,984	815	870	
		168	5							11,000	295		10,11	
		62,020	1,300			200	21	8,000	210	187,750	4,344			
10,000	500	1,602,315	28,880	1,055,420	30,344	102,975	5,166	110,000	4,070	68,890	1,167	734	1,502	
		591,700	18,236			33,600	1,355			1,079,308	35,811	20,405	47,335	
10,000	800	2,899,311	40,159	308,100	11,202	208,136	6,655	5,020	125	63,500	4,472	2,420	4,005	
								32,085	1,139	2,637,592	83,322	9,482	19,614	
1,000	20	38,400	1,049	5,000	142	51,000	1,386			870,683	26,054	7,888	10,606	
		100	2			99,500	4,335			12,500	582	185	325	
										20,000	918	240	620	
										2,100	62		20	
		21,800	835	403,726	9,674	143,000	4,320	350		660,533	66,122	4,788	10,578	
						90,880	3,602							
		21,000	650	4,145,654	85,874	72,800	2,379	213,850	12,455	6,600	277	3,743,346	173,881	
			6,000	120				27,650	705	18,100	555	214,100	3,343	
												410	650	
1,097,000	20,643	377,200	7,397	54,000	1,700	62,000	750			1,132,900	33,787	1,388	2,007	
83,233	2,913	227,580	6,595			55,200	1,392					2,020	3,671	
										485,000	14,955		25	
										418,478	66,628	1,140	2,015	
		20,150	467		100	4	12,800	525			56,020	1,982	500	857
												770	2,040	
												1,600	675	
													28	
		9,000	320			6,000	220	7,000	200	274,500	9,802	60	65	
													31	
1,530,500	22,842	4,000	50			48,000	1,735							
			9,000	190										

MANUFACTURING INDUSTRIES.

TABLE 2.—DETAILED STATEMENT, SHIPBUILDING,

STATES AND TERRITORIES.	MATERIALS USED—continued.									Boilers and machinery. (Cost.)	
	Total.	Cost of metal.									
		Iron bolts, spikes, rivets, straps, stanchions, girders, etc.	Steel chords, arches, straps, girders, and knees.	Rolled iron plates, beams, angles, etc.	Forgings, iron and steel.	Iron castings.	Anchors and chains.	Yellow metal, including bolts and spikes.	All other iron work, cast or wrought.		
1 The United States.....	\$4,872,074	\$1,219,237	\$410,050	\$1,858,428	\$474,638	\$226,970	\$213,927	\$443,274	\$25,541	\$2,913,856	
2 Alabama.....	1,250	1,000						160			
3 California.....	784,697	79,583	293,580	46,750	151,100	40,590	8,460	164,459	85	4,000	
4 Connecticut.....	72,858	49,004			150	1,210	12,094	8,500	1,000	51,025	
5 Delaware.....	272,295	28,217		131,348	45,091	27,100	37,100	2,271	202	223,102	
6 District of Columbia.....	1,130	705						425			
7 Florida.....	3,533	2,084						734	115	1,425	
8 Georgia.....	4,320	3,425	135					610		8,000	
9 Illinois.....	14,771	13,046	25					500	1,200	32,000	
10 Indiana.....	29,213	29,013						200		300	
11 Iowa.....	1,057	457						600			
12 Kentucky.....	4,401	3,401						1,000			
13 Louisiana.....	16,019	4,735	1,200					9,734		10,500	
14 Maine.....	215,551	138,581	1,017					51,909	584	34,016	
15 Maryland.....	119,895	27,788		59,752	14,880	6,700		6,740	5,035	407,000	
16 Massachusetts.....	103,851	62,690	800					14,255	21,385	4,721	
17 Michigan.....	507,489	150,890	49,341	254,080	9,900	11,130	27,156	2,632	1,451	753,214	
18 Minnesota.....	212,930	16,190		183,100	4,000	3,000	0,400	40	200	20,500	
19 Mississippi.....	787	787							500	7,000	
20 Missouri.....	33,675	33,175									
21 New Jersey.....	182,281	64,075	3,500	49,000	10,000	4,250	8,758	41,614	481	210,400	
22 New York.....	670,082	317,758	6,480	184,530	47,470	15,591	13,176	82,507	3,170	149,276	
23 North Carolina.....	8,553	4,564	100					100	1,679	900	
24 Ohio.....	713,076	81,956	44,756	530,126	28,446	6,428	13,155	7,085	1,724	393,293	
25 Oregon.....	9,638	6,544						2,060	434	10,100	
26 Pennsylvania.....	781,658	52,421		401,042	149,201	105,550	13,573	59,787	84	445,260	
27 Rhode Island.....	7,632	2,816	3,280					108	1,233	195	
28 South Carolina.....	10,720	6,120						700	3,850	50	
29 Texas.....	1,000	1,344						40	5	220	
30 Vermont.....	200	200									
31 Virginia.....	80,438	6,428		17,400	6,500	4,900	1,990	1,100	1,121	24,815	
32 Washington.....	14,526	5,801	25	400	7,000	1,480	310	20		10,075	
33 West Virginia.....	705	305									
34 Wisconsin.....	26,818	20,765	5,211					758	10	5,758	
35 All other states.....	4,805	2,180						25	600	1,500	

SHIPBUILDING.

563

BY STATES AND TERRITORIES: 1890—Continued.

MATERIALS USED—continued.														
Cost of cordage.			Blocks.		Duck.		Painting. (Cost.)	Oakum and pitch. (Cost.)	Masts and spars (not made in yard). (Cost.)	Fittings and furniture (not made in yard). (Cost.)	Fuel. (Cost.)	Rent of power and heat. (Cost.)	All other materials. (Cost.)	
Wire.	Hemp.	Manilla.	Number	Cost.	Yards.	Cost.								
\$89,114	\$54,337	\$165,819	28,275	\$74,927	641,791	\$141,819	\$332,690	\$227,094	\$204,365	\$401,245	\$232,570	\$4,955	\$1,153,050	
4,650	200	10,170	340	2,384	1,526	153	308	1,058	250	250	250	1,939	2	
9,612	2,225	9,150	1,024	2,407	47,782	9,476	6,402	14,277	7,030	2,051	69,986	720	110,303	
4,388	4,588	9,213	1,720	4,476	99,235	12,857	10,865	6,476	16,830	4,500	70	200	41,407	
					25,035	5,007	17,775	4,173	10,746	41,926	16,326	60,772	5	
					500	60	675	260	100			1,894	6	
258	249	872	18	180	2,325	201	1,147	1,024	820	5	249	7		
60	100	50	111	980	700	700	1,580	555		350	6,100	8		
25		25			100	300	2,177	6,237		3,250	5,500	9		
100	80	3,000	240	700	23,000	2,820	6,184	6,259	400	170	710	18,035	10	
					307	38	841	807		30	10	5,057	11	
5	350	55			2,000	290	1,530	3,888				3,828	12	
188	196	50	87		200	60	2,469	2,402	660	200	48	3,729	13	
29,905	17,024	42,275	9,053	22,474	181,949	46,096	23,538	17,600	45,040	39,845	1,040	240	75,584	
100	150	400			4,100	820	5,905	5,664			10,450	19,105		
4,513	2,100	7,909	3,490	5,535	45,941	10,810	34,654	23,516	20,283	13,119	3,791	100	40,077	
14,588	500	28,632	4,053	8,115	61,826	16,644	48,283	22,217	11,400	89,603	15,036	200	87,750	
75	105	5,000	16	85	7,419	2,325	977	653		5,500	504	40,396	18	
			18				55	720		1,050			19	
20					250	50	350	5,000				4,382	20	
9,925	18,909	18,085	3,920	18,585	32,102	5,006	20,781	26,021	42,352	2,100	1,808		28,154	21
8,381	576	4,778	1,347	2,851	43,108	8,250	48,867	45,854	27,018	26,036	25,188	3,405	313,410	22
25	206	84	100	250	3,400	369	1,472	512	50	502	500	600	600	23
3,366	512	8,469	450	1,505	18,584	3,904	32,742	8,870	3,924	99,352	28,900		176,329	24
100	1,700	1,000	225	575	10,700	2,720	2,442	8,100	9,022	750	20		7,025	25
2,500	231	11,422	1,387	7,045	50,480	10,111	44,851	5,737	5,350	125,211	40,074		55,847	26
120		787	55	55	3,700	1,078	1,718	618		600	2,490		3,840	27
			1,200	400	200	200	1,000			800			250	28
569	399	822	115	110	400	82	595	177				540	540	20
230	3,000	1,015	350	950			4,463	2,591	700	4,375	3,100	30	500	30
1,150	1,000	105	36	143	4,900	930	1,765	1,702	400	550	3,205		1,645	32
40		47	50	10	492	53	540	1,745		2			630	33
		80	25				856	817	590	25	80		21,122	34
							543	75		150			35	

MANUFACTURING INDUSTRIES.

TABLE 2.—DETAILED STATEMENT, SHIPBUILDING.

BY STATES AND TERRITORIES: 1890—Continued.

PRODUCTS—continued.											
Wooden vessels built.											
Total.			Sail.			Steam.			Barges and canal boats.		
Number.	Tonnage.	Value.	Number.	Tonnage.	Value.	Number.	Tonnage.	Value.	Number.	Tonnage.	Value.
1,265	360,667	\$12,933,140	300	90,486	\$5,129,741	294	103,390	\$5,851,422	.665	157,791	\$1,051,986
33	11,225	540,014	15	2,166	181,300	8	5,928	336,525	10	3,131	22,189
61	21,947	763,089	24	7,545	371,000	16	975	78,300	21	13,427	318,789
19	10,850	338,270	9	5,857	262,300	4	613	36,800	6	4,380	30,170
7	675	8,000				1	15	3,500	6	000	4,500
26	816	21,800	13	220	11,840	1	68	8,500	12	538	6,550
14	2,450	29,000							14	2,450	29,000
14	308	76,587	4	4	367	8	274	75,000	2	120	1,200
37	10,438	498,000				28	6,527	421,500	14	3,911	76,500
32	555	24,405				25	275	22,000	7	290	2,405
8	754	10,050				1	88	2,950	7	666	7,100
65	1,735	64,380	16	145	12,500	7	520	20,500	42	1,070	22,380
73	48,492	2,570,373	69	47,307	2,425,373	3	1,049	139,000	1	56	6,000
14	7,028	200,350	3	846	47,750	2	2,132	122,000	9	4,050	30,600
117	21,120	1,019,570	41	11,290	662,070	10	2,221	259,500	66	7,600	98,000
80	48,532	2,005,035	21	10,106	454,486	52	33,701	2,849,100	16	4,725	101,500
11	1,775	27,500				4	275	10,500	7	1,500	17,000
7	327	6,000	6	267	5,100				1	60	900
4	232	15,700				1	97	8,500	3	135	7,200
76	26,981	757,207	33	10,237	469,907	10	1,712	124,800	33	14,032	162,500
346	77,058	1,207,530	20	1,437	82,759	47	7,876	457,831	270	68,645	726,900
13	1,926	29,100	1	20	1,000	3	246	17,300	9	1,000	10,800
65	25,641	761,003	1	80	4,000	22	9,516	609,500	42	15,945	147,593
18	3,880	208,100	4	1,092	76,500	12	2,288	186,600	2	500	5,000
25	23,570	185,575				11	22,000	168,525	14	1,570	17,050
4	205	22,500	2	30	2,500	2	175	20,000			27
46	3,875	121,000	6	130	17,000	3	120	50,000	37	3,625	51,000
4	25	1,250	2	5	1,000				2	20	250
1	100	2,200							1	100	2,200
14	2,869	70,000	4	220	9,500	4	360	33,000	6	2,280	27,500
8	1,730	48,850	2	338	27,000	2	151	10,000	4	1,250	11,850
2	225	10,500				2	225	16,500			33
11	3,808	253,991	1	45	4,500	9	3,758	249,191	1	5	300
1	216	10,000				1	216	10,000			35

MANUFACTURING INDUSTRIES.

TABLE 2.—DETAILED STATEMENT, SHIPBUILDING.

SHIPBUILDING.

567

BY STATES AND TERRITORIES: 1890—Continued.

PRODUCTS—continued.

Repairing of vessels.										Boats, masts, and spars. (Value of repairs.)						Value of all other products.
Total.		Sail.		Steam.		Barges.		Canal boats.		Total.	Ships' boats.	Fishing boats.	Pleasure boats.	Life-boats.	Masts and spars.	
Number.	Value of repairs.	Number.	Value of repairs.	Number.	Value of repairs.	Number.	Value of repairs.	Number.	Value of repairs.							
27,327	\$10,010,620	11,408	\$9,077,382	6,755	\$5,409,474	3,433	\$1,108,423	5,731	\$415,350	\$502,608	\$43,226	\$121,748	\$200,223	\$3,520	\$73,891	\$1,745,985
96	38,701	17	5,562	44	15,948	35	17,191	-----	-----	7,515	2,405	1,400	2,050	600	1,100	693,679
812	427,276	681	233,065	71	153,866	60	40,345	-----	-----	16,020	20	1,200	5,500	300	9,000	3,950
383	223,932	166	61,585	128	88,503	84	72,844	6	1,000	24,450	400	20,400	-----	3,750	-----	4
237	303,582	124	46,960	90	249,074	23	7,542	-----	-----	3,000	-----	3,000	-----	-----	-----	5
79	15,855	63	12,800	13	3,000	1	15	2	40	-----	-----	-----	-----	-----	-----	6
254	37,857	93	11,818	112	18,670	39	3,705	10	8,604	1,753	-----	568	1,150	-----	85	1,500
212	96,500	120	60,500	67	20,000	25	16,000	-----	-----	800	-----	-----	-----	800	-----	8
746	272,998	277	91,694	371	144,043	42	10,221	56	27,040	560	-----	500	-----	1,450	-----	9
46	39,350	-----	33	36,000	13	3,350	-----	-----	1,450	-----	50	50	-----	-----	-----	10
91	46,519	-----	48	37,641	43	8,878	-----	-----	-----	-----	-----	-----	-----	-----	-----	11
77	20,045	-----	32	19,550	45	10,386	-----	-----	3,200	-----	-----	3,200	-----	-----	6,050	12
218	156,566	52	26,084	109	105,900	57	24,582	-----	-----	2,200	-----	400	-----	1,800	-----	13
700	108,031	621	102,521	78	5,417	1	93	-----	-----	25,150	2,794	988	5,790	-----	15,578	14
1,664	523,057	1,302	336,857	203	172,580	48	13,300	11	1,100	33,241	1,800	29,901	1,450	-----	8,000	15
1,811	543,014	1,350	337,476	344	172,384	90	31,054	18	3,000	110,045	9,095	21,580	74,164	390	4,810	85,641
747	512,007	177	122,945	291	312,014	251	71,374	28	5,674	7,085	3,750	350	2,280	81	615	18,841
102	31,000	50	2,000	66	16,500	13	6,200	63	0,300	3,895	-----	-----	3,715	-----	180	1,035
54	15,710	39	8,830	9	4,630	6	2,250	-----	-----	1,620	900	-----	500	120	-----	19
90	391,525	-----	56	301,026	34	30,500	-----	-----	2,891	-----	-----	2,891	-----	-----	-----	20
3,420	1,294,416	1,451	507,045	540	438,933	744	267,021	694	80,817	21,130	-----	6,400	13,850	500	980	5,450
10,172	3,526,556	2,714	707,438	1,901	2,199,107	972	277,597	4,585	252,414	115,949	2,540	9,050	93,020	1,449	9,881	593,700
177	52,994	85	24,804	42	22,000	50	6,100	-----	-----	2,233	350	625	1,227	-----	31	23
1,140	311,575	223	42,050	77	239,600	86	29,850	57	0,075	12,390	200	-----	12,100	-----	-----	04,950
18	32,500	2	2,500	13	26,000	3	4,000	-----	-----	2,560	10	2,550	-----	-----	-----	25
1,218	287,324	155	17,852	581	176,903	320	75,343	153	17,226	42,482	89	2,000	15,053	300	25,010	193,828
469	72,312	355	45,400	89	24,200	25	2,712	-----	-----	14,415	-----	1,800	12,505	50	-----	27
288	49,600	140	14,000	80	24,000	68	11,600	-----	-----	9,300	300	7,550	4,200	250	1,200	28
85	4,250	85	4,250	-----	-----	-----	-----	-----	-----	4,066	-----	8,751	250	65	-----	29
784	833,850	402	84,850	191	190,000	177	40,500	14	3,000	17,370	6,200	11,045	225	-----	400	3,515
35	12,300	10	250	19	10,000	6	1,150	-----	-----	2,525	-----	-----	2,525	-----	12,000	32
75	20,000	-----	-----	40	12,000	35	8,000	60	-----	-----	00	-----	-----	-----	-----	33
908	189,297	645	75,550	350	112,077	3	1,600	-----	-----	450	-----	50	400	-----	3,092	34
30	9,000	-----	-----	10	3,000	20	6,000	-----	-----	12,313	12,313	-----	-----	-----	-----	35

MANUFACTURING INDUSTRIES.

TABLE 3.—DETAILED STATEMENT, IRON AND

STATES.	Number of establishments reporting.	Value of hired property.	CAPITAL.							Miscellaneous expenses.	AVERAGE NUMBER OF EMPLOYEES AND TOTAL WAGES. (a)		
			Direct investment.				Plant.						
			Aggregate.	Total.	Land.	Buildings.	Machinery, tools, and implements.	Live assets.	Em- ployés.		Em- ployés.	Wages.	
1 The United States.....	21	\$393,000	\$33,900,148	\$28,491,282	\$8,713,572	\$7,386,783	\$11,390,927	\$5,408,806	\$546,135	10,767	\$6,579,063		
2 New York.....	4		12,940,230	12,069,765	6,901,000	2,890,865	2,877,900	270,465	25,343	2,333	1,430,006		
3 Ohio.....	4		2,107,400	1,020,800	849,800	245,200	426,300	1,080,600	64,835	1,947	1,097,684		
4 All other states (b)	13	393,000	18,852,518	14,800,717	2,463,272	4,250,718	8,086,727	4,051,801	465,957	6,487	4,050,473		

^a Includes officers, firm members, and clerks.^b Includes states having less than 3 establishments, in order that the operations of individual establishments may not be disclosed. These establishments are

TABLE 4.—DETAILED STATEMENT, WOODEN VESSEL

STATES.	Number of establishments reporting.	Value of hired property.	CAPITAL.							Miscellaneous expenses.	AVERAGE NUMBER OF EMPLOYEES AND TOTAL WAGES. (a)		
			Direct investment.				Plant.						
			Aggregate.	Total.	Land.	Buildings.	Machinery, tools, and implements.	Live assets.	Em- ployés.		Em- ployés.	Wages.	
1 The United States.....	250	\$816,105	\$8,928,851	\$3,605,049	\$1,710,655	\$748,718	\$1,145,676	\$5,323,802	\$482,377	8,173	\$4,645,679		
2 California.....	9	28,300	144,025	57,200	38,500	7,600	11,100	86,825	126,161	174	177,411		
3 Connecticut.....	12	27,500	410,050	141,100	45,000	41,200	54,900	288,050	13,221	546	304,200		
4 Delaware.....	4	17,600	139,915	62,300	28,500	10,350	23,450	77,615	2,700	273	160,489		
5 Florida.....	7	3,250	8,105	4,745	2,600	470	1,075	3,450	657	31	13,026		
6 Illinois.....	3		459,287	388,335	308,000	62,600	17,735	70,952	8,861	172	101,919		
7 Indiana.....	5	1,500	301,025	99,225	52,000	25,000	22,225	261,800	6,774	537	249,146		
8 Louisiana.....	5	1,000	49,010	9,250	3,800	3,700	1,750	39,700	417	54	20,510		
9 Maine.....	32	56,605	865,091	180,350	59,650	43,050	76,750	684,741	100,643	1,341	739,619		
10 Maryland.....	7	24,000	375,075	210,775	104,000	10,200	96,575	164,800	10,028	210	142,151		
11 Massachusetts.....	17	128,000	532,750	114,850	52,900	20,800	40,050	418,400	31,504	474	321,834		
12 Michigan.....	20	168,550	2,385,737	383,090	193,050	89,383	100,060	2,002,038	71,302	1,326	700,411		
13 Minnesota.....	4	2,300	29,610	19,300	3,500	2,500	13,300	10,310	990	58	29,150		
14 Mississippi.....	3	300	1,850	1,350	550	250	550	500	110	20	5,015		
15 New Jersey.....	16	94,400	459,515	271,539	105,075	28,700	137,674	188,000	10,688	323	205,112		
16 New York.....	55	156,050	872,241	371,216	152,600	78,490	140,126	501,025	34,742	858	569,668		
17 North Carolina.....	5	17,200	55,210	36,250	11,700	15,350	9,200	18,900	2,704	110	89,300		
18 Ohio.....	16	15,800	738,905	520,900	258,290	96,100	175,000	208,915	15,930	650	320,435		
19 Oregon.....	9	1,400	221,950	170,950	53,700	32,400	84,850	51,000	8,700	177	114,695		
20 Pennsylvania.....	4		211,850	157,150	92,400	13,300	51,450	54,700	1,800	187	107,354		
21 Virginia.....	5	30,250	49,350	29,850	15,000	3,000	11,850	19,500	1,335	108	36,405		
22 Washington.....	4	12,600	4,550	3,950	140	110	3,700	600	1,513	102	23,091		
23 Wisconsin.....	3	4,000	344,405	265,500	100,000	181,500	34,000	78,905	8,185	200	142,658		
24 All other states (b)	14	24,900	209,225	97,275	29,100	31,675	36,500	111,950	16,115	233	112,300		

^a Includes officers, firm members, and clerks.^b Includes states having less than 3 establishments, in order that the operations of individual establishments may not be disclosed. These establishments are

SHIPBUILDING.

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STEEL VESSEL BUILDING, BY STATES: 1890.

Cost of materials used.	Aggregate value.	PRODUCTS.												Value of all other products, including repairing.	
		Vessels built.													
		Total.			Sail.			Steam.			Barges.				
		Number.	Tonnage.	Value.	Number.	Tonnage.	Value.	Number.	Tonnage.	Value.	Number.	Tonnage.	Value.		
\$6,037,425	\$15,206,058	101	148,929	\$13,256,703	8	4,224	\$211,200	88	138,751	\$12,720,503	5	5,954	\$325,000	\$1,949,955	
422,057	2,132,012	19	26,927	1,671,900	5	1,424	71,200	14	25,503	1,600,709	.....	.....	.....	400,103
1,332,906	2,701,400	10	28,780	2,592,000	2	2,200	110,000	14	26,580	2,482,000	5	5,954	325,000	109,400	
4,882,402	10,373,246	66	93,222	8,992,794	1	000	80,000	60	80,668	8,637,794	.....	.....	.....	1,380,452

distributed as follows: California, 2; Delaware, 2; Maryland, 1; Michigan, 1; Minnesota, 1; New Jersey, 1; Pennsylvania, 2; Rhode Island, 1; Virginia, 1; Washington, 1.

BUILDING, BY STATES AND TERRITORIES: 1890.

Cost of materials used.	Aggregate value.	PRODUCTS.												Value of all other products, including repairing.	
		Vessels built.													
		Total.			Sail.			Steam.			Barges and canal boats.				
		Number.	Tonnage.	Value.	Number.	Tonnage.	Value.	Number.	Tonnage.	Value.	Number.	Tonnage.	Value.		
\$6,582,032	\$14,218,090	1,173	342,934	\$12,439,624	201	93,816	\$4,881,542	282	101,352	\$5,750,100	600	117,826	\$1,807,082	\$1,778,475	
210,473	550,718	28	11,112	598,864	16	2,166	181,300	8	5,928	338,525	5	3,018	21,030	17,854	
440,006	858,390	60	21,447	745,200	24	7,545	371,000	16	975	78,300	20	12,027	295,900	113,190	
108,726	410,890	19	10,850	338,270	9	5,857	202,300	4	613	36,800	6	4,980	39,170	72,020	
15,750	32,700	20	810	21,890	13	220	11,840	1	58	3,500	12	538	6,550	10,819	
95,353	249,731	14	998	76,507	4	4	307	8	274	75,000	2	120	1,200	173,104	
109,738	537,350	37	10,498	498,000	.....	.....	.....	23	6,527	421,500	14	3,911	76,500	30,350
30,283	60,220	65	1,735	64,380	16	145	12,500	7	520	29,500	42	1,070	22,380	1,840	
1,348,512	2,591,411	71	48,442	2,500,073	67	47,347	2,421,073	3	1,030	139,000	1	56	6,000	25,338	
162,364	376,807	14	7,028	200,350	3	846	47,750	2	2,132	122,000	9	4,050	30,600	170,457	
517,131	1,133,785	103	20,200	988,570	41	11,299	682,070	0	2,091	247,500	53	6,900	79,000	145,215	
1,540,071	2,973,039	76	40,855	2,875,035	21	10,106	454,435	51	33,624	2,344,100	4	3,125	76,500	68,004	
20,557	56,500	11	1,775	27,500	.....	.....	.....	4	275	10,500	7	1,500	17,000	29,600
2,100	9,835	7	327	6,000	0	267	5,100	.....	.....	.....	1	60	900	3,835
103,198	519,499	61	18,380	490,607	25	4,794	234,107	9	1,612	120,800	27	11,980	135,700	28,892	
713,203	1,510,990	320	74,223	1,211,300	27	1,365	79,200	43	7,043	445,700	256	65,215	686,400	305,696	
23,841	76,795	13	1,326	20,100	1	20	1,000	3	240	17,300	9	1,060	10,800	47,605	
340,758	870,453	63	25,361	758,643	1	80	4,000	22	9,516	609,500	40	15,765	145,443	120,510	
111,530	295,195	18	3,880	268,100	4	1,092	76,500	12	2,288	186,600	2	600	5,000	27,095	
126,623	238,735	23	23,120	182,525	.....	.....	.....	11	22,000	168,525	12	1,120	14,000	50,210
30,294	110,450	11	2,616	52,500	3	120	6,000	2	216	19,000	6	2,280	27,500	57,950	
17,247	48,600	7	1,539	47,500	2	338	27,000	2	151	10,000	3	1,050	10,500	1,100	
108,867	313,645	8	2,463	199,800	1	45	4,500	6	2,413	195,000	1	5	300	113,845	
114,347	365,340	112	8,567	252,550	8	160	10,500	36	1,211	188,450	68	7,190	99,600	112,700	

distributed as follows: Arkansas, 1; District of Columbia, 2; Georgia, 2; Iowa, 1; Kentucky, 1; Missouri, 1; Rhode Island, 2; South Carolina, 2; Vermont, 1; West Virginia, 1.

MANUFACTURING INDUSTRIES.

TABLE 5.—DETAILED STATEMENT, BOAT BUILDING AND MANUFACTURE

STATES.	Number of establish- ments report- ing.	CAPITAL.							Miscel- laneous expenses.	AVERAGE NUMBER OF EMPLOYÉS AND TOTAL WAGES. (a).		
		Value of hired prop- erty.	Direct investment.					Live assets.		Em- ployés.	Wages.	
			Aggregate.	Plant.			Machinery, tools, and implements.					
1 The United States.....	503	\$618,208	\$5,131,857	\$4,010,107	\$1,790,251	\$1,290,040	\$929,816	\$1,121,750	\$110,129	2,196	\$1,391,155	
2 California.....	9	41,200	47,050	26,000	2,000	15,600	8,400	21,050	4,038	57	53,256	
3 Connecticut.....	12	19,000	77,591	47,362	11,700	8,200	27,402	30,220	4,300	51	34,002	
4 Delaware.....	5	1,500	21,798	15,550	6,200	7,550	1,800	6,248	1,339	24	12,941	
5 Florida.....	6	3,750	9,361	8,230	5,800	1,250	180	1,131	301	11	3,000	
6 Illinois.....	4	5,200	98,808	40,048	37,113	—	—	12,835	48,920	3,030	32,636	
7 Indiana.....	6	2,350	10,835	4,920	1,850	1,400	1,070	6,515	948	14	4,587	
8 Kentucky.....	25	12,500	24,136	18,435	8,850	8,450	1,635	5,701	1,981	33	18,313	
9 Louisiana.....	3	1,000	8,445	4,435	725	1,150	2,560	2,410	85	13	8,532	
10 Maine.....	42	34,520	117,130	37,440	6,840	13,825	16,775	79,600	6,104	67	49,778	
11 Maryland.....	17	8,870	44,187	22,800	4,850	9,080	8,870	21,387	1,700	67	31,297	
12 Massachusetts.....	101	125,085	401,359	183,505	69,135	47,455	66,015	277,854	24,009	420	270,446	
13 Michigan.....	31	14,150	95,385	52,790	24,700	16,475	11,615	42,595	6,391	104	44,078	
14 Minnesota.....	14	8,300	26,163	13,095	4,100	4,600	4,395	18,068	1,030	27	14,793	
15 Mississippi.....	4	300	2,020	1,721	625	610	480	308	31	10	2,200	
16 New Jersey.....	24	15,500	73,395	28,065	12,200	6,750	9,715	44,730	2,014	73	48,100	
17 New York.....	91	250,533	727,607	375,118	168,633	105,085	100,500	352,549	35,888	602	424,000	
18 North Carolina.....	10	900	5,368	4,225	305	380	3,550	1,043	502	22	6,294	
19 Ohio.....	17	12,800	74,913	40,435	7,355	4,015	20,065	34,478	5,074	112	60,674	
20 Oregon.....	3	—	4,050	2,550	1,100	550	000	1,500	75	16	8,924	
21 Pennsylvania.....	17	27,400	118,552	55,200	26,125	13,000	15,415	63,352	4,404	119	95,375	
22 Rhode Island.....	10	5,000	27,165	10,280	7,300	4,000	7,980	7,885	661	23	14,025	
23 South Carolina.....	6	6,500	4,020	2,200	500	400	1,300	1,820	754	13	5,286	
24 Texas.....	8	800	8,810	5,700	935	2,200	2,625	3,050	360	29	10,788	
25 Virginia.....	6	500	15,176	9,901	4,380	1,880	3,641	5,275	158	9	5,083	
26 Washington.....	12	4,900	49,370	19,390	3,540	11,200	4,650	29,080	1,690	40	46,625	
27 Wisconsin.....	9	2,850	14,400	7,045	2,725	1,750	2,570	7,445	499	21	6,866	
All other states (b).....	11	3,800	2,966,135	2,954,607	1,371,075	1,001,025	581,907	11,528	957	91	68,431	

^a Includes officers, firm members, and clerks.

TABLE 6.—DETAILED STATEMENT,

STATES.	Number of establish- ments report- ing.	CAPITAL.							Miscel- laneous expenses.	AVERAGE NUMBER OF EMPLOYÉS AND TOTAL WAGES. (a).		
		Value of hired prop- erty.	Direct investment.					Live assets.		Em- ployés.	Wages.	
			Aggregate.	Plant.			Machinery, tools, and implements.					
1 The United States.....	227	\$1,122,742	\$5,432,218	\$8,704,227	\$1,080,400	\$744,760	\$1,939,067	\$1,607,991	\$253,910	4,708	\$3,412,050	
2 Alabama.....	5	4,910	37,750	38,500	500	5,700	27,300	4,250	1,085	85	25,074	
3 California.....	13	22,000	175,708	110,008	10,450	2,500	97,058	65,698	4,050	126	135,150	
4 Connecticut.....	5	6,100	77,300	59,550	29,000	12,000	18,550	17,750	2,849	55	37,920	
5 Florida.....	3	1,500	75,000	73,700	18,000	44,100	11,600	1,900	1,125	34	16,605	
6 Illinois.....	3	1,600	80,284	61,951	34,000	2,850	5,101	18,333	1,832	79	52,466	
7 Kentucky.....	3	—	28,575	27,300	7,300	1,900	18,100	1,275	1,176	40	20,144	
8 Louisiana.....	5	11,000	312,363	266,403	55,400	17,675	108,328	45,960	12,725	125	90,483	
9 Maine.....	11	9,700	45,535	26,175	10,500	4,400	11,275	19,360	2,195	101	54,318	
10 Maryland.....	9	66,400	153,000	101,400	25,200	10,200	66,000	51,600	22,143	197	125,014	
11 Massachusetts.....	29	107,200	245,839	101,900	43,100	23,100	35,700	143,080	15,401	285	264,648	
12 Michigan.....	10	42,700	465,350	398,300	39,150	300,500	58,580	67,050	9,083	313	103,007	
13 New Jersey.....	21	404,300	847,104	605,725	117,500	100,185	370,070	241,439	64,198	667	512,571	
14 New York.....	67	390,632	1,941,511	1,129,240	372,000	135,500	621,140	812,271	70,469	1,736	1,385,121	
15 Ohio.....	7	5,000	29,503	22,385	11,300	6,550	4,535	7,208	1,138	104	33,410	
16 Pennsylvania.....	9	28,350	70,120	41,020	8,500	5,700	27,420	28,500	4,948	105	69,972	
17 Virginia.....	6	250	246,200	194,700	84,200	31,550	68,950	61,500	2,943	92	58,146	
18 Wisconsin.....	4	—	185,933	151,525	65,875	7,050	78,600	34,408	2,473	90	55,051	
All other states (b).....	17	20,500	414,345	368,845	127,825	24,270	210,750	45,500	33,168	504	282,935	

^a Includes officers, firm members, and clerks.^b Includes states having less than 3 establishments, in order that the operations of individual establishments may not be disclosed. These establishments are

SHIPBUILDING.

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OF MASTS AND SPARS, BY STATES AND TERRITORIES: 1890.

Cost of materials used.	Aggregate value.	PRODUCTS.												Value of all other products, including repairing.
		Boats built.												
		Total.		Ships.		Fishing.		Pleasure.		Life.		Masts and spars. (Value.)		
		Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.			
\$1,151,768	\$8,101,526	18,577	\$1,410,948	943	\$143,587	4,470	\$103,228	12,404	\$1,011,866	700	\$71,247	\$400,111	\$1,841,467	1
40,550	120,563	503	50,725	71	6,265	348	17,170	144	25,490	30	1,800	35,260	34,578	2
21,202	68,547	244	45,760	108	23,765	9	1,825	122	18,170	5	2,000	22,562	22,562	3
13,473	45,500	248	18,778	110	6,096	20	2,900	22	1,100	90	5,682	26,812	26,812	4
2,702	8,612	70	3,370	2	90	33	1,600	35	2,180	.....	150	4,592	4,592	5
27,708	72,250	1,111	71,750	.....	.....	1,111	71,750	.....	.....	.....	.....	500	500	6
4,491	14,290	826	12,840	.....	.....	.....	826	12,840	.....	.....	.....	1,450	1,450	7
23,980	57,600	1,915	46,300	.....	.....	.....	1,915	46,300	.....	.....	.....	11,300	11,300	8
2,521	11,450	63	3,134	10	750	25	744	32	1,040	1	600	2,925	5,400	9
52,672	132,911	926	65,181	170	13,001	109	13,627	647	37,053	.....	.....	20,685	38,045	10
29,300	85,670	214	62,400	17	8,400	33	31,450	164	12,610	.....	.....	100	33,110	11
256,213	658,763	5,101	298,291	152	11,485	3,206	72,575	1,723	211,111	20	3,120	190,080	190,080	12
36,531	101,631	1,252	63,748	34	1,870	6	3,550	1,141	54,948	71	3,380	11,057	25,926	13
10,607	34,240	669	20,010	.....	.....	13	870	652	27,865	4	275	.....	5,230	14
730	3,450	37	2,400	6	675	1	900	30	825	.....	.....	150	900	15
77,923	153,032	315	47,907	.....	.....	37	4,055	274	42,852	4	1,000	80,670	25,075	16
341,760	947,770	2,423	841,470	106	10,982	153	17,160	1,742	207,950	422	45,378	14,936	591,373	17
4,705	14,652	54	9,976	3	510	40	7,841	11	1,025	.....	.....	3,097	1,000	18
88,889	124,120	672	30,760	90	4,700	1	250	581	25,810	70	70	93,290	93,290	19
5,560	11,020	38	11,020	4	200	14	1,520	19	9,250	1	50	.....	6,276	20
74,301	213,862	337	32,801	9	798	2	1,135	255	24,526	71	6,432	8,833	172,138	21
5,570	24,814	39	9,082	.....	.....	4	1,050	35	8,032	.....	.....	1,317	14,415	22
5,782	15,390	15	4,950	.....	.....	14	4,050	1	300	.....	.....	80	10,300	23
10,722	26,447	223	20,171	1	100	160	4,198	50	15,825	3	50	.....	6,276	24
4,471	10,250	24	1,980	.....	.....	1	400	23	1,580	.....	.....	.....	8,270	25
22,078	78,885	234	63,010	.....	.....	.....	.....	234	63,010	.....	.....	.....	15,875	26
7,493	17,202	416	16,360	.....	.....	102	2,400	314	18,360	.....	.....	.....	842	27
20,131	107,037	423	66,124	50	60,000	40	1,360	301	13,204	32	1,500	20,000	21,813	28

b Includes states having less than 3 establishments, in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: District of Columbia, 2; Iowa, 2; Missouri, 2; New Hampshire, 1; Vermont, 2; West Virginia, 2.

VESSEL REPAIRING, BY STATES: 1890.

Cost of materials used.	Total value.	PRODUCTS.												Value of all other products, including building.	
		Repairs.													
		Sail vessels.		Steam vessels.		Barges.		Canal boats.		Other boats, masts, and spars. (Value of repairs.)					
		Number.	Value of repairs.	Number.	Value of repairs.	Number.	Value of repairs.	Number.	Value of repairs.						
\$2,553,884	\$7,755,832	7,828	\$2,411,832	3,637	\$3,202,623	2,309	\$808,860	3,371	\$306,200	\$83,387	\$882,930	1
9,403	38,701	17	5,502	44	15,948	35	17,161	.....	.....	.....	.....	.....	1,200	2
88,059	204,820	667	104,669	54	65,711	31	33,180	.....	.....	.....	.....	.....	18,214	3
73,885	126,364	138	36,000	75	32,600	54	35,650	.....	.....	.....	.....	.....	1,500	4
3,250	26,099	50	7,531	79	15,220	28	1,790	.....	.....	.....	.....	.....	658	5
25,071	99,834	126	36,054	101	34,220	26	2,661	51	26,290	.....	.....	.....	.....	6
6,020	88,295	.....	.....	32	19,550	45	10,386	.....	.....	.....	.....	.....	3,350	7
38,455	151,906	49	22,884	107	105,300	52	23,582	.....	.....	.....	.....	.....	200	8
21,001	94,243	510	70,400	36	3,200	1	93	.....	.....	.....	.....	.....	10,650	9
37,006	303,497	484	210,000	116	74,900	23	3,200	4	600	6,731	.....	2,086	10	
117,061	456,090	1,015	236,801	237	129,844	67	28,554	18	3,000	27,400	.....	31,500	11	
118,297	445,438	99	87,000	101	255,900	242	67,964	27	5,174	.....	.....	30,000	12	
634,721	1,534,269	946	495,553	518	495,233	728	204,421	635	60,007	5,055	.....	264,940	13	
1,022,755	2,984,783	2,485	747,035	1,423	1,472,356	531	178,451	2,397	170,257	14,303	.....	402,381	14	
38,386	99,803	37	35,000	56	45,000	1	800	52	5,415	12,000	.....	2,150	15	
33,548	129,546	4	4,000	.....	.....	280	69,977	138	15,397	2,600	.....	37,572	16	
39,929	176,300	397	82,000	173	61,000	75	3,000	14	3,000	9,600	.....	17,700	17	
61,981	132,273	180	26,550	137	47,832	1	1,500	.....	.....	.....	.....	56,891	18	
133,951	627,834	615	99,593	288	449,891	174	66,960	35	8,000	840	.....	2,550	19	

distributed as follows: Georgia, 2; Iowa, 2; Minnesota, 1; Mississippi, 2; Missouri, 2; North Carolina, 1; Oregon, 2; Rhode Island, 2; Tennessee, 1; Texas, 1; West Virginia, 1.

MANUFACTURING INDUSTRIES.

TABLE 7.—CLASSIFICATION OF EMPLOYÉS AND WAGES AND AVERAGE NUMBER OF EMPLOYÉS AT

STATES AND TERRITORIES.	Number of establishments reporting.	AVERAGE NUMBER OF EMPLOYÉS IN EACH CLASS AND AVERAGE WEEKLY EARNINGS.													
		Aggregates.		Officers and firm members actively engaged in the industry or in supervision.						Clerks.					
		Average number.	Total wages.	Males above 16 years.			Females above 15 years.			Males above 16 years.			Females above 15 years.		
				Number.	Average weekly earnings per employé.	Total wages.	Number.	Average weekly earnings per employé.	Total wages.	Number.	Average weekly earnings per employé.	Total wages.	Number.	Average weekly earnings per employé.	
1 The United States.....	1,010	25,934	\$16,028,847	825	\$26.30	\$957,536	1	\$48.08	\$2,500	287	\$16.50	\$230,871	10	\$7.74	\$3,903
2 Alabama.....	5	85	25,074	1	37.50	150				2	11.54	600			
3 California.....	33	1,792	1,408,089	14	86.54	58,846				1	25.00	1,360			
4 Connecticut.....	20	652	370,122	26	22.50	26,344				2	15.00	1,560			
5 Delaware.....	11	1,802	899,151	24	62.83	78,100				17	21.39	18,828	2	12.00	1,248
6 District of Columbia.....	4	14	8,410												
7 Florida.....	10	76	33,621	6	15.61	3,450				1	9.35	200			
8 Georgia.....	4	118	61,184	6	21.26	6,020									
9 Illinois.....	10	831	187,021	9	21.73	9,120				6	18.97	5,500	1	8.33	433
10 Indiana.....	11	551	253,738	7	21.39	5,764				1	20.00	1,040			
11 Iowa.....	5	48	26,926	3	13.02	1,825									
12 Kentucky.....	29	88	41,577	26	14.77	15,812									
13 Louisiana.....	13	192	119,555	12	21.93	11,601				5	16.41	3,413			
14 Maine.....	85	1,639	843,715	79	18.79	60,153				7	14.08	4,302	3	7.54	1,176
15 Maryland.....	34	1,075	640,342	18	20.95	17,517				14	19.09	11,342			
16 Massachusetts.....	147	1,188	865,928	101	20.01	89,833				11	13.47	7,128			
17 Michigan.....	62	2,284	1,267,102	70	21.48	67,287				22	13.48	14,370	1	5.08	244
18 Minnesota.....	20	310	178,608	10	22.37	8,724				1	23.08	1,200			
19 Mississippi.....	9	47	15,742	2	17.77	764									
20 Missouri.....	5	357	150,224	6	30.55	7,020				5	22.33	4,355			
21 New Jersey.....	62	1,186	890,730	55	23.26	59,977				15	17.84	13,522			
22 New York.....	217	5,529	8,810,394	176	28.41	227,518	1	48.08	2,500	56	17.42	47,505	2	6.62	662
23 North Carolina.....	16	138	50,484	10	16.59	7,184				2	12.02	1,312			
24 Ohio.....	44	2,822	1,521,212	51	28.21	61,972				92	14.59	66,995			
25 Oregon.....	14	208	135,222	7	21.02	6,007				2	26.79	1,500			
26 Pennsylvania.....	32	2,022	1,215,876	29	41.80	58,321				18	19.15	17,775			
27 Rhode Island.....	15	200	133,453	16	22.63	15,980									
28 South Carolina.....	8	83	47,280	7	19.81	6,300									
29 Texas.....	9	31	11,788	2	11.15	918									
30 Vermont.....	3	14	4,572	2	12.00	312									
31 Virginia.....	18	510	345,454	13	16.14	9,108				2	7.88	820			
32 Washington.....	17	186	97,216	14	20.81	12,361				1	13.46	350			
33 West Virginia.....	4	57	17,650	2	8.97	700									
34 Wisconsin.....	16	311	205,005	21	26.78	22,980				4	28.82	5,620	1	3.85	200
35 All other states (a).....	3	79	61,572												

^aIncludes states having less than 3 establishments, in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Arkansas, 1; New Hampshire, 1; Tennessee, 1.

SHIPBUILDING.

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THE DIFFERENT WEEKLY RATES OF PAY, SHIPBUILDING, BY STATES AND TERRITORIES: 1890.

AVERAGE NUMBER OF EMPLOYÉS IN EACH CLASS AND AVERAGE WEEKLY EARNINGS—continued.																		
Operatives and skilled.												Unskilled.						
Males above 16 years.			Females above 15 years.			Children.			Males above 16 years.			Children.						
Number.	Average weekly earnings per employé.	Total wages.	Number.	Average weekly earnings per employé.	Total wages.	Number.	Average weekly earnings per employé.	Total wages.	Number.	Average weekly earnings per employé.	Total wages.	Number.	Average weekly earnings per employé.	Total wages.	Number.	Total wages.		
17,883	\$13.97	\$11,781,165	7	\$6.24	\$2,272	33	\$3.91	\$5,714	5,616	\$8.85	\$2,431,804	141	\$2.83	\$20,630	1,131	\$592,392	1	
43	18.91	17,061							31	7.02	4,654				8	2,609	2	
1,388	17.08	1,191,509							338	11.37	199,114				51	18,220	3	
468	13.67	277,545				3	4.27	500	143	9.05	62,653				10	7,520	4	
1,140	10.37	607,154	6	6.41	2,000	1	3.85	200	461	7.14	170,318	140	2.83	20,665	2	700	5	
14	16.17	8,410															6	
60	11.54	27,809							2	5.32	346				7	1,726	7	
88	11.47	45,734							20	7.68	9,320					8		8
282	12.06	163,076				10	3.92	2,496	17	7.03	5,604					9		9
387	11.72	202,667							150	6.37	44,272					10		10
34	13.52	20,976							11	9.07	4,125					11		11
26	14.02	11,791							36	11.89	14,174					10	8,312	12
119	15.73	76,645							46	9.47	19,494				28	6,044	13	
1,260	12.38	713,449							152	9.01	58,476	1	1,92	25	11	1,200	15	
982	14.18	598,121				2	3.71	338	48	10.80	20,824				07	22,410	16	
981	15.55	734,716							28	9.08	11,841							
1,263	12.58	740,300	1	5.23	272	10	4.00	2,080	691	9.05	329,508				226	112,951	17	
83	14.05	46,219							225	10.47	122,405						18	
40	11.61	12,978							3	9.52	1,200				2	800	19	
151	11.39	72,363							45	9.16	15,480				150	60,000	20	
992	16.50	750,172							108	9.53	50,894				16	16,224	21	
3,732	15.57	2,701,570				1	2.33	100	1,470	9.14	667,524				91	72,940	22	
83	11.60	35,908							6	0.02	2,100				37	4,520	23	
1,540	13.05	899,508							922	8.45	388,587				217	104,150	24	
175	16.90	115,205							24	10.53	12,420						25	
1,318	12.33	820,216							400	0.81	164,877				188	148,687	26	
184	12.56	117,473							17	0.06	5,356				5	370	27	
54	12.54	35,200												5	8,000	28		
24	9.22	7,870														29		
12	11.70	4,260							11	5.80	2,840						30	
484	14.55	332,026															31	
69	18.97	62,089							102	10.01	31,816						32	
50	10.00	16,100							5	5.77	750						33	
265	13.30	167,559							20	9.30	9,240						34	
76	16.25	60,280							3	8.50	1,292						35	

MANUFACTURING INDUSTRIES.

TABLE 7.—CLASSIFICATION OF EMPLOYÉS AND WAGES AND AVERAGE NUMBER OF EMPLOYÉS AT THE

STATES AND TERRITORIES.	WEEKLY RATE OF WAGES PAID AND AVERAGE NUMBER OF EMPLOYÉS AT EACH RATE, INCLUDING OFFICERS, FIRM MEMBERS, AND CLERKS, BUT NOT THOSE EMPLOYED ON PIECEWORK. (a)											
	Males above 16 years.											
	Total number.	Under \$5.	\$5 and over but under \$6.	\$6 and over but under \$7.	\$7 and over but under \$8.	\$8 and over but under \$9.	\$9 and over but under \$10.	\$10 and over but under \$12.	\$12 and over but under \$15.	\$15 and over but under \$20.	\$20 and over but under \$25.	\$25 and over.
1 The United States.....	24,611	595	359	567	1,482	1,538	2,363	3,060	5,330	7,178	1,505	544
2 Alabama	77	—	3	9	18	1	9	—	2	10	24	1
3 California	1,741	65	59	43	—	47	5	25	349	693	289	106
4 Connecticut	639	1	2	5	7	39	70	71	178	248	8	10
5 Delaware	1,651	162	18	31	428	106	133	201	338	190	14	30
6 District of Columbia	14	—	—	—	—	—	—	—	—	14	—	—
7 Florida	69	2	4	—	11	—	10	8	17	11	6	—
8 Georgia	118	—	5	2	8	13	—	68	6	11	5	—
9 Illinois	314	1	14	8	5	13	—	114	43	78	14	6
10 Indiana	551	9	10	56	103	8	20	38	263	33	8	3
11 Iowa	48	—	2	—	—	5	12	7	10	10	2	—
12 Kentucky	88	—	—	1	10	1	6	12	19	35	3	1
13 Louisiana	182	8	1	3	2	—	42	5	9	101	4	7
14 Maine	1,507	1	21	23	22	81	142	397	416	833	53	18
15 Maryland	1,062	28	28	27	35	71	96	141	153	428	38	17
16 Massachusetts	1,121	1	7	4	12	16	28	110	105	525	190	24
17 Michigan	2,040	25	30	18	102	203	407	124	741	347	30	10
18 Minnesota	319	—	—	1	1	8	128	7	120	35	3	7
19 Mississippi	45	6	—	—	6	—	3	2	14	—	—	—
20 Missouri	207	—	1	15	—	18	30	101	7	21	6	8
21 New Jersey	1,170	9	7	15	46	28	61	82	267	455	185	25
22 New York	5,434	57	27	60	65	455	659	677	945	1,840	530	101
23 North Carolina	101	2	—	0	16	2	10	16	24	22	2	1
24 Ohio	2,605	32	43	132	249	212	220	518	597	549	27	20
25 Oregon	208	—	4	—	13	—	7	10	50	72	39	4
26 Pennsylvania	1,834	96	26	59	294	142	154	146	370	468	37	42
27 Rhode Island	200	1	—	—	1	1	33	60	50	47	2	5
28 South Carolina	78	3	—	16	—	—	1	43	2	8	3	2
29 Texas	26	5	2	—	—	2	3	4	6	1	3	—
30 Vermont	14	—	—	—	—	—	5	3	6	—	—	—
31 Virginia	510	11	36	12	8	43	4	15	67	311	6	2
32 Washington	186	69	1	—	4	5	—	1	8	59	33	11
33 West Virginia	57	1	5	5	6	6	14	18	—	1	1	—
34 Wisconsin	310	—	3	7	15	9	32	36	49	144	7	8
35 All other states	70	—	—	—	—	8	1	—	6	64	5	—

^a In comparing the weekly rates of wages and the number of employés at each rate with the average weekly earnings presented in the first part of this table, it must be remembered that it is not practicable to obtain true average weekly earnings from this table of weekly rates, because the term of employment varies for employés at the respective rates.

SHIPBUILDING.

575

DIFFERENT WEEKLY RATES OF PAY, SHIPBUILDING, BY STATES AND TERRITORIES: 1890—Continued.

SALT.

2588—37

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SALT.

This report on the manufacture of salt in the United States during the census year ending May 31, 1890, comprehends the manufacture of salt by artificial heat, by solar evaporation, and from rock salt. Only those establishments are included which reported a product of \$500 or more in value.

The following comparative summary presents the results obtained at the censuses of 1880 and 1890, under the principal heads of inquiry, with the percentage of increase or decrease during the decade:

COMPARATIVE SUMMARY, SALT MANUFACTURE: 1880 AND 1890.

ITEMS.	1880	1890	Percentage of increase.
Number of establishments reporting	268	200	a25.37
Capital	\$8,225,740	\$18,427,740	b63.36
Miscellaneous expenses.....	(b)	\$674,183	.....
Average number of employés (aggregate)	4,280	4,455	3.87
Total wages	\$1,260,028	\$1,782,491	41.46
Officers, firm members, and clerks:			
Average number.....	(c)	200	.....
Total wages	(c)	\$189,049	.....
All other employés:			
Average number	(c)	4,255	.....
Total wages	(c)	\$1,503,442	.....
Cost of materials used.....	\$2,074,049	\$1,826,770	a11.92
Value of products	\$4,829,566	d\$5,434,618	13.56
Bushels of salt produced	20,835,298	52,034,900	74.58

aDecrease. bNot reported. cNot reported separately. dIncludes products other than salt to the value of \$43,315.

From the above statement it appears that during the past decade there has been a decrease in the number of establishments and cost of materials used, while the value of product has increased 13.56 per cent, and the quantity of salt produced 74.58 per cent.

No preceding census inquiry has comprehended data relating to cost of manufacture other than statistics of wages and materials. The data presented in this report for 1890 are intended to embrace the entire cost of production other than allowance for depreciation of plant and interest on capital. The difference between the cost and value shown must not, however, be taken as indicating the net profit or earnings for capital, because these statistics contain no information relating to cost of selling, mercantile losses, or depreciation of plant. The census inquiry was intended simply to ascertain the true relation which capital, expenses, wages, and cost of materials bear to the value at the works of the products of manufacturing industry, excluding all cost or expense pertaining to the mercantile portion of the business.

The decrease of 68 in the number of establishments during the decade from 1880 to 1890 is due in a measure to the abandonment of salt making from sea water on the Atlantic coast, and the consolidation of salt manufacturing plants in the several states, notably in California. When two or more salt manufacturing plants owned by the same corporation, firm, or individual are located in the same county or city, they are counted in the tabulations of this office as one establishment.

Owing to changes in the form of the inquiry adopted for the census of 1890 the data reported for all the items, when compared with those of the Tenth Census, should not be considered as indicating the exact increase or decrease during the decade. These changes occur principally in the questions concerning capital and employés and wages.

MANUFACTURING INDUSTRIES.

It is believed that the form of inquiry concerning capital used at the Eleventh Census has served to more fully develop the true amount of capital than the preceding census inquiries. The form of questions used at the census of 1880 respecting capital was as follows: "Capital (real and personal) invested in the business". The inquiry at the Eleventh Census was more in detail and required under the title "Value of plant", (1) the amount invested in land, (2) value of buildings, (3) value of machinery, tools, and implements. Under the title "Live capital" was required, (1) value of raw materials on hand, (2) stock in process and finished products on hand, (3) cash on hand, bills receivable, unsettled ledger accounts, and sundries not included in any of the foregoing items.

EMPLOYÉS AND WAGES.

In comparing the statistics of employés and wages reported at the two censuses, it should be remembered that the schedule of inquiry used at the Eleventh Census provided for a more thorough exposition of the different classes of employés and the wages paid. The classification of employés made at the Tenth Census was that of males above 16 years, females above 15 years, and children. The classification used at the Eleventh Census was as follows: (1) operatives, engineers, and other skilled workmen, overseers and foremen or superintendents (not general superintendents or managers), (2) officers or firm members, (3) clerks, (4) watchmen, laborers, teamsters, and other unskilled workmen, (5) pieceworkers (not included in the foregoing). A further division of the above classes into males above 16 years, females above 15 years, and children was required. The questions also required the average number of males, females, and children to be reported at specified weekly rates of wages.

Of the 4,455 employés reported for the manufacture of salt 200 are reported as officers, firm members, and clerks, receiving \$189,049 as wages, or 4.49 per cent of the total number of employés and 10.61 per cent of the total wages. Considering the skilled and unskilled employés as one class, there were 3,708 reported as receiving \$1,422,242 as wages, or 83.23 per cent of the total number and 79.79 per cent of the total wages. There were 547 pieceworkers reported, with \$171,200 as wages, or 12.28 per cent of the total number and 9.60 per cent of the total wages.

The proportion of males, females, and children, respectively, in the whole number of employés is as follows:

AVERAGE NUMBER AND PER CENT OF MALES ABOVE 16 YEARS, FEMALES ABOVE 15 YEARS, AND CHILDREN EMPLOYED, SALT MANUFACTURE: 1890.

CLASSES.	Average number.	Percentage of total.
Total	4,455	100.00
Males above 16 years	4,252	95.44
Females above 15 years	151	3.39
Children	52	1.17

The following statement presents the average number of employés at specified weekly rates of wages. This statement includes all classes of employés except pieceworkers.

AVERAGE NUMBER OF EMPLOYÉS AT DIFFERENT WEEKLY RATES OF WAGES, INCLUDING OFFICERS, FIRM MEMBERS, AND CLERKS, BUT NOT THOSE EMPLOYED ON PIECEWORK, SALT MANUFACTURE: 1890.

WEEKLY RATES OF WAGES.	AVERAGE NUMBER OF EMPLOYÉS.			
	Aggregate.	Males above 16 years.	Females above 15 years.	Children.
Total	3,908	3,705	78	35
Under \$5.....	76	51	8	17
\$5 and over but under \$6.....	61	15	33	13
\$6 and over but under \$7.....	224	191	28	5
\$7 and over but under \$8.....	529	520	9	.....
\$8 and over but under \$9.....	631	681	.....	.....
\$9 and over but under \$10.....	946	940	.....	.....
\$10 and over but under \$12.....	718	718	.....	.....
\$12 and over but under \$15.....	883	883	.....	.....
\$15 and over but under \$20.....	145	145	.....	.....
\$20 and over but under \$25.....	71	71	.....	.....
\$25 and over	74	74	.....	.....

MATERIALS.

In the manufacture of salt by artificial heat fuel is the principal item of expense classed among materials used. The other items of cost shown under this head in the tables as "All other materials" are packages, lime, soda ash, lumber for the repair of covers, materials for the repair of kettles, pans, and grainers, and other miscellaneous materials. Fuel, lime, and soda ash are the only articles enumerated under materials that enter into and form a part of the product. The total cost of all the items classed as materials was \$1,826,770, or 42.65 per cent of the total cost of manufacture. Of this amount \$745,917, or 17.42 per cent of the total cost of manufacture, was expended for fuel. The amount reported as paid for fuel does not represent the value of all fuel consumed in the manufacture of salt, as in many establishments, especially in the state of Michigan, the sawdust and waste steam of the sawmill are consumed in the salt plant, no value being reported for such fuel or for the fuel used in generating the waste steam.

PRODUCTS.

The total quantity of salt manufactured during the census year was 52,034,300 bushels, valued at \$5,441,303, with other products valued at \$43,315, as compared with 29,805,298 bushels valued at \$4,829,566 in 1880, being an increase in quantity of salt manufactured of 74.58 per cent and value of products of 13.56 per cent. The salt reported at both censuses includes that manufactured by artificial heat in kettles, pans, settlers, and grainers; salt manufactured by solar evaporation in vats or ponds covered and uncovered, also rock salt mined and ground. All other products shown for 1890, with a value of \$43,315, consisted principally of bromine, there having been manufactured 167,550 pounds valued at \$40,395.

The following comparative statement shows the quantities of each kind of salt reported at both censuses, with the percentage that each constitutes of the total quantity manufactured:

COMPARATIVE STATEMENT, QUANTITY OF SALT MANUFACTURED AND PERCENTAGE EACH KIND IS OF TOTAL:
1880 AND 1890.

KIND OF SALT.	1880		1890	
	Quantity. (Bushels.)	Percentage of total.	Quantity. (Bushels.)	Percentage of total.
Total	29,805,298	100.00	52,034,300	100.00
Rock salt.....	312,000	1.05	7,000,405	13.58
Solar salt.....	4,517,770	15.16	7,216,312	13.87
Salt made by boiling process	24,075,522	83.79	37,751,583	72.55

The states in which salt is reported as having been manufactured during the census year are arranged in the following statement in the order of their importance, according to the quantity of salt produced. The number of bushels manufactured in each state is shown; also the percentage that the product of each state is of the total product for the United States.

QUANTITY AND PER CENT OF PRODUCT, BY STATES AND TERRITORIES, SALT MANUFACTURE: 1890.

STATES AND TERRITORIES.	Number of bushels of salt manufactured.	Percentage of total product.
The United States.....	52,034,300	100.00
Michigan	18,645,553	35.83
New York	16,131,251	31.00
Kansas	5,703,905	10.96
Utah	3,132,143	6.02
Ohio	2,047,509	3.94
West Virginia.....	1,427,806	2.74
California.....	1,270,041	2.45
Pennsylvania	862,000	1.66
Nevada	126,249	0.24
All other states (a).....	2,681,503	5.10

a Includes Illinois, Kentucky, Louisiana, Massachusetts, Texas, and Virginia.

MANUFACTURING INDUSTRIES.

The following statement presents by states and territories the number of establishments reporting and the number of wells and mines; also the number of establishments reported as engaged in the manufacture of rock salt, of salt by solar evaporation, and of salt by artificial heat, with the characteristics and equipment of the plants for evaporation of the brine, the source of brine, and the number of bushels of salt obtained from each source:

ESTABLISHMENTS, WELLS, AND MINES, PROCESSES OF MANUFACTURE AND QUANTITY OF SALT, SALT MANUFACTURE, BY STATES AND TERRITORIES: 1890.

STATES AND TERRITORIES.	Num- ber of estab- lish- ments report- ing.	Num- ber of wells.	ROCK SALT.		SOLAR EVAPORATION.			ARTIFICIAL HEAT.			SALT MANUFACTURED. (BUSHELS.)		
			Num- ber of estab- lish- ments.	Num- ber of mines.	Covers.		Num- ber of estab- lish- ments.	Area. (Square feet.)	Num- ber of blocks.	Num- ber of kettles, boil- ers, pans, grainers, jacketed kettles, or vacuum pans.	From sea or bay water.	From inland lakes or natural deposits.	From sub- terranean brines.
					Number.	Area. (Square feet.)							
The United States.....	200	424	4	4	47	40,143	10,828,412	150	186	a3,418	1,065,141	10,538,011	40,431,148
California	9				9						1,061,641	215,000	
Kansas	23	28	1	1	1	545	139,520	21	21	48		83,289	5,614,700
Michigan.....	681	240			1	2,600	104,000	81	92	a477			18,645,553
Nevada.....	3				3							126,243	
New York.....	50	83	1	1	23	36,588	10,469,692	26	46	1,926		5,444,133	10,687,001
Ohio.....	9	29							9	9	311		2,047,509
Pennsylvania.....	3	5							3	3	22		862,050
Utah	9		1	1	8							3,132,143	
West Virginia.....	5	22							5	5	a149		1,427,306
All other states (e)	8	17	1	1	2	410	115,200	5	10	485	3,500	1,531,143	1,146,950

a Includes 3 settlers and 8 cisterns in Michigan and 4 settlers in West Virginia.

b One establishment manufactures salt by both solar evaporation and artificial heat.

c Includes states having less than 3 establishments, in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Illinois, 1; Kentucky, 2; Louisiana, 1; Massachusetts, 1; Texas, 2; Virginia, 1.

SALT MANUFACTURE, BY STATES.

There were 884,743 bushels of salt reported as manufactured in California at the census of 1880, as compared with 1,276,641 bushels reported at the census of 1890, an increase of 44.30 per cent. Table 1 of this report shows a decrease in the number of establishments from 1880 to 1890; this is due not to an actual decrease in the number of salt manufacturing plants but to the consolidation of several establishments under one firm. The entire product of the state was manufactured by solar evaporation in uncovered ponds or vats. The center of activity was in Alameda county, on San Francisco bay, where the manufacture was carried on by the introduction of bay water into uncovered ponds with wood or clay bottoms. A similar method was used at Otay, in San Diego county, where there was 1 establishment in operation. The only exception to the use of sea water was at Salton, in San Diego county, in the interior of the southern part of the state, where the salt forms a natural deposit and is gathered from the surface of the desert and ground and refined for use.

There was but 1 establishment engaged in salt manufacture in Illinois during the census year. This establishment was located at St. John, in Perry county. The brine, which is obtained from 7 wells, each 1,000 feet in depth, shows a strength of 33° salinometer. The evaporation is by the pan and grainer process, the evaporating plant consisting of 56 pans and grainers.

Kansas during the census year was the third state in order of production. The total product reported for the state consisted of 5,703,995 bushels, as compared with 13,000 bushels at the Tenth Census. The brine supply was obtained from 28 wells having an average depth of 798 feet; its strength in most instances reached the point of 100° salinometer, going as low, however, as 34° salinometer in the case of 1 establishment manufacturing salt by solar evaporation; the brine evaporating surface for this establishment consisted of 545 covers, with an area of 139,520 square feet. There were 48 pans and grainers reported for the state as used for the concentration of brine by direct heat and steam. But 1 establishment, located at Kingman, Kingman county, was reported as mining rock salt during the census year; its operations were conducted in a bed 800 feet below the surface and 12 feet in thickness, its extent at the time reported being unknown. Fuel to the value of \$195,286 was consumed during the census year for evaporation and power-producing purposes.

The brine used in the manufacture of salt in the state of Kentucky was obtained from 6 wells, ranging in depth from 528 to 820 feet, the average depth being 605 feet. The average strength of brine was 33° salinometer. The evaporation was by artificial heat in boilers, pans, and grainers.

The conditions of salt manufacture in Louisiana remain practically unchanged since 1880. There was but 1 establishment reported for the state, and it was engaged in the mining and grinding of rock salt. The operations were conducted on Petite Anse, or Avery island, Iberia parish, in a bed of solid salt.

The manufacture of salt in Massachusetts shows a marked decrease during the last decade, the entire product for 1890 being made by 1 establishment manufacturing salt from bay water by solar evaporation. The number of covers in use was 160, with an area of 43,200 square feet. There were 3 other establishments in operation, but their combined product was less than \$500 in value, and they are not included in this report.

In the production of salt and the number and productive capacity of its establishments, Michigan holds first place. The product during the census year was 18,645,553 bushels, or 35.83 per cent of the output for the United States. The increase shown for 1890, when compared with 1880, was 6,219,668 bushels, or 50.05 per cent. With the exception of 1 establishment that evaporated brine by the use of both solar and artificial heat, the pan and grainer process was used entirely. As reported, the equipment of plants for evaporating by artificial heat was 477 pans and grainers (including 3 settlers and 8 cisterns), and for solar evaporation 2,600 covers, having an area of 104,000 square feet. The manufacture is conducted in the counties of Bay, Huron, Iosco, Manistee, Mason, Midland, Saginaw, and St. Clair. Brine is obtained from wells, 240 in number, varying in depth from 715 to 2,900 feet, with an average depth of about 1,050 feet. The density of the brine ranges from 62° to 105° salinometer. In the majority of cases in this state the manufacture of salt is carried on in close connection with the operation of lumber and saw mills, and it was difficult for manufacturers to make separate returns for both branches of industry. By this connection fuel was obtained at an extremely low cost, the exhaust steam and refuse sawdust from the mills being used for this purpose. The total cost of fuel for the entire state was only \$138,882.

The salt manufactured in Nevada is entirely a product of solar evaporation. The brine is obtained in some instances by means of shallow wells or ditches, and is conducted into uncovered clay-bottom vats for evaporation. The production has decreased from 182,408 bushels in 1880 to 126,249 in 1890, or 30.79 per cent. The product of this state is utilized largely in the chlorination treatment of the ores of precious metals.

New York is the second state in rank of salt production. The number of bushels manufactured during the census year was 16,131,251, as compared with 8,748,203 bushels in 1880, an increase of 84.40 per cent.

The manufacture is carried on in the following counties: Genesee, Livingston, Onondaga, and Wyoming. At the Tenth Census Onondaga county was the only one in the state for which returns of salt manufacture were made. Since then the industry has developed in the other counties named.

MANUFACTURING INDUSTRIES.

The Onondaga reservation, which includes all salt manufacturing establishments in and adjacent to the city of Syracuse, is under a strict system of inspection by state officers, the wells being the property of the state, and salt manufacturers are charged for brine used at the rate of 1 cent per bushel of salt manufactured. There were 40 wells in this district in operation during the census year.

There were 83 wells reported for the entire state with an average depth of 1,100 feet, furnishing a brine that ranged in strength from an average of 70° salinometer in Onondaga county to 90° and the point of complete saturation in the other counties named. Evaporation is by the solar process and by artificial heat in Onondaga county, while in Genesee, Livingston, and Wyoming counties the system of evaporation by direct heat and steam is followed exclusively. The equipment for the purpose of evaporation in the whole state consisted of 1,926 kettles, pans, and grainers, and 36,588 covers, with an area of 10,469,692 square feet.

The mining of rock salt is conducted at Piffard, in Livingston county, in 2 beds at a depth of 1,100 feet below the surface, 80 feet in thickness, and in area about 800 acres.

The production of salt in Ohio has decreased from 2,650,301 bushels in 1880 to 2,047,569 in 1890, or 22.74 per cent. This decrease is due to the abandonment of salt manufacturing in Athens, Columbiana, Guernsey, Morgan, and Muskingum counties, where it was carried on to some extent in 1880. Salt was manufactured in Meigs and Tuscarawas counties during the census year, Pomeroy, Meigs county, being the point of greatest activity in production. Brine was supplied by 27 wells in Meigs county, ranging in depth from 1,100 to 1,300 feet, and in Tuscarawas by 2 wells, each 900 feet in depth. The evaporation was entirely by direct heat and steam, there having been in operation for this purpose 311 pans and grainers. The fuel consumed, consisting largely of slack coal, cost \$49,513.

The manufacture of salt in Pennsylvania during the census year, as reported to this office, was conducted by 3 establishments in Allegheny county, reporting an annual product of 862,000 bushels, as compared with 16 establishments, having an annual product of 851,450 bushels, at the census of 1880. The process of manufacture was almost entirely by grainers, the pan process being used to a limited extent. Natural gas was used exclusively for fuel. The brine was obtained from 5 wells from 1,500 to 2,000 feet in depth, and possessed an average strength of 36° salinometer. There were 92,490 pounds of bromine manufactured from the bittern of the salt works.

The only salt deposits in Texas reported as worked during the census year were in Mitchell and Van Zandt counties. The brine which was obtained from 2 wells, 1 in Mitchell county, 1,100 feet in depth, and 1 in Van Zandt county, 500 feet in depth, was a saturated solution of 100° salinometer. The Mitchell county plant evaporated its brine by the solar process, having in use 250 covers, with a surface area of 72,000 square feet; the works in Van Zandt had 2 blocks of 2 evaporating pans each.

The highly concentrated brine of Great Salt lake, in Utah, showing a strength of 65° salinometer, is the foundation of salt manufacture in that territory, the entire product, with the exception of 1,786 bushels of rock salt, having been evaporated from its waters. The production has increased from 483,800 bushels in 1880 to 3,132,143 bushels in 1890, or 547.40 per cent. The salt from the waters of the lake is made entirely by solar evaporation, the water being pumped into ponds, and after evaporation it is gathered and shipped, that portion, by far the larger, which is intended for the chlorination of ores, in its unrefined condition, that for table and dairy use being dried and refined.

There are 2 rock salt deposits in the territory, 1 at Nephi city, Juab county, the product of which during the census year was valued at less than \$500, and is therefore not included in this report. The other at Salina, Sevier county, which occurs as a bed at a shallow depth of 8 feet below the surface. The area of this bed is 20 acres, from 5 to 10 feet in thickness, and is worked by shafts and drifts.

The salt manufactured in Virginia during the census year was the product of 1 establishment using the kettle process of evaporation by direct heat, the plant consisting of 5 blocks of 420 kettles. The brine, which was obtained from 2 wells, 252 and 267 feet in depth, was from 80° to 90° salinometer.

With the exception of an establishment at Malden, Kanawha county, the manufacture of salt in West Virginia is confined to Mason county, where the industry is conducted under very similar conditions to those at Pomeroy, Ohio, on the opposite side of the Ohio river, the brine deposit being the same. In this state there are 22 wells of an average depth of 991 feet, furnishing a brine of from 30° to 40° salinometer. Evaporation is by the pan and grainer process, and there were reported in use for this purpose 149 pans and grainers, including 4 settlers. The fuel employed was bituminous coal and natural gas.

The statistical tables accompanying this report are as follows:

Table 1 is a comparative statement by state totals, showing the items of inquiry common to both censuses.

Table 2 is a detailed statement of the data concerning the manufacture of salt reported at the Eleventh Census; it shows the various subdivisions of capital, miscellaneous expenses, employés and wages, materials used, and products.

The employés are classified as (1) officers or firm members; (2) clerks; (3) skilled workmen; (4) unskilled workmen; with the average number of males above 16 years, females above 15 years, and children, respectively, and the average weekly earnings per employé, also the total wages for each of the respective classes, and the

number of pieceworkers and their total wages. This table also shows the average number of males, females, and children employed at specified weekly rates of wages.

The questions concerning employés and wages called for the "Average number employed during the year", that is, the average number having continuous employment for the full time reported by individual establishments. Upon this basis the computations are made to obtain the "Average weekly earnings". The number of employés reported for each establishment is multiplied by the number of weeks the establishment was in operation; the result is the number of weeks required for 1 employé to perform the labor. Aggregating such results of individual reports, the number of weeks required for 1 employé to perform the entire labor is obtained. This number, used as a divisor for the total wages reported, produces the average weekly earnings.

MANUFACTURING INDUSTRIES.

TABLE I.—COMPARATIVE STATEMENT, SALT MANUFACTURE,

	STATES AND TERRITORIES.	Year.	Number of establish- ments report- ing.	Capital.	AVERAGE NUMBER OF EMPLOYÉS AND TOTAL WAGES.				
					Aggregates.		Males above 16 years.	Females above 15 years.	Children.
					Average number.	Total wages.			
1	The United States.....	1880	263	\$5,225,740	4,280	\$1,200,023	4,125	20	141
2		1890	200	13,437,740	4,455	1,782,491	4,252	151	52
3	California.....	1880	25	375,050	188	50,620	188		
4		1890	9	362,135	173	81,525	173		
5	Kansas.....	1880	1	6,000	2	700	2		
6		1890	23	781,085	449	187,660	433	16	
7	Kentucky.....	1880	3	20,500	34	8,759	34		
8		b1890							
9	Louisiana.....	1880	1	250,000	45	11,000	45		
10		b1890							
11	Massachusetts.....	1880	5	9,000	8	1,030	8		
12		b1890							
13	Michigan.....	1880	86	2,147,209	1,468	541,852	1,416		52
14		1890	81	3,195,120	1,620	578,614	1,527	61	41
15	Nevada.....	1880	7	45,300	36	9,688	31	3	2
16		1890	3	23,500	22	7,210	22		
17	New York.....	1880	60	2,286,081	1,012	274,087	962	11	39
18		1890	50	7,171,126	1,245	544,326	1,162	71	9
19	Ohio.....	1880	25	832,600	453	105,261	449	2	2
20		1890	9	425,731	260	87,070	260		
21	Pennsylvania.....	1880	16	234,500	137	52,047	131		6
22		1890	3	157,413	50	38,200	59		
23	Texas.....	1880	8	92,000	10	8,150	17	1	1
24		b1890							
25	Utah.....	1880	10	13,400	73	20,932	62	3	8
26		1890	9	238,136	180	53,858	178		2
27	Virginia.....	1880	1	1,000,000	76	14,219	76		
28		b1890							
29	West Virginia.....	1880	15	910,500	736	100,297	702		34
30		1890	5	361,906	165	67,548	165		
31	Wyoming.....	1880	1	3,000	2	1,460	2		
32		c1890							
33	All other states.....	b1890	8	721,537	273	130,471	273		

^a Includes "All other products" to the value of \$43,315.^b Includes states having less than 3 establishments, in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Illinois, 1; Kentucky, 2; Louisiana, 1; Massachusetts, 1; Texas, 2; Virginia, 1.

BY STATES AND TERRITORIES: 1880 AND 1890.

COST OF MATERIALS USED.			PRODUCTS.				
Total.	Fuel.	All other materials.	Total value.	Salt. (Bushels.)			
				Total.	Rock.	Solar.	Boiling process.
\$2,074,040 1,820,770	\$916,100 745,917	\$1,157,040 1,080,853	\$4,820,566 a5,484,618	20,805,298 52,034,300	312,000 7,066,405	4,517,776 7,216,312	24,975,522 37,751,583
19,495 20,067	376 2,027	19,119 18,040	121,050 160,722	884,743 1,276,641	..... .....	878,393 1,276,641	6,350
710 352,574	195,286	710 157,288	5,700 697,802	13,000 5,703,995	..... 80,286	13,000 20,000	5,594,700 5,594,700
9,008	3,408	5,600	21,950	83,000	..... .....	..... .....	83,000 83,000
			56,100	312,000	312,000	..... .....	9 10
20		20	3,800	9,575	..... .....	9,575	11 12
1,009,733 784,012	377,939 138,892	631,794 645,130	2,271,913 2,040,975	12,425,885 18,645,553	..... .....	153,500 64,286	12,272,385 18,581,267
5,800 90		5,800 90	92,640 21,491	182,408 126,240	..... .....	182,408 126,249	15 16
507,029 449,602	240,112 252,776	160,908 190,826	1,107,760 1,563,228	8,748,203 16,131,251	..... 5,444,100	2,777,000 2,483,479	5,071,203 8,203,582
202,543 83,552	112,337 40,513	90,206 34,030	363,701 212,541	2,650,301 2,047,500	..... .....	2,650,301 2,047,500	10 20
74,347 27,445	37,141 15,592	36,006 11,853	177,415 156,398	851,450 302,000	..... .....	851,450 302,000	21 22
9,100	6,400	2,700	20,700	50,600	..... .....	16,600 34,000	23 24
4,000 5,672	480 2,552	3,520 2,820	60,280 144,300	483,800 3,132,143	..... 1,786	482,300 3,130,357	1,500 26
30,000	30,000	3,000	127,678	425,895	..... .....	..... 425,895	27 28
102,113 42,839	100,447 37,589	91,606 5,300	980,369 136,638	2,670,498 1,427,306	..... .....	2,079,438 1,427,306	20 30
1,460	1,460		8,700	5,000	..... .....	5,000	31 32
66,017	51,360	15,557	388,623	2,681,503	1,531,143	115,309	1,035,150

e No reports received in 1890.

MANUFACTURING INDUSTRIES.

TABLE 2.—DETAILED STATEMENT, SALT MANUFACTURE,

STATES AND TERRITORIES.	Number of establish- ments re- porting.	Aggregate.	CAPITAL.																			
			Value of plant.						Live assets.													
			Total.	Land.	Buildings.	Machinery, tools, and im- plements.	Total.	Raw materials.	Stock in process and finished products on hand.	Cash, bills and accounts receivable, and all sup- plies not elsewhere reported.												
1 The United States...	200	\$13,437,749	\$11,247,548	\$4,287,784	\$4,235,890	\$2,703,868	\$2,100,201	\$321,543	\$1,010,321	\$858,937												
2 California.....	9	362,135	183,125	112,500	29,300	41,925	179,010	25,150	15,500	138,380												
3 Kansas.....	23	781,085	614,118	94,065	45,039	55,074	166,967	12,299	34,472	129,196												
4 Michigan.....	81	3,195,120	2,397,764	379,475	1,251,893	706,393	707,350	168,713	542,903	85,740												
5 Nevada.....	3	23,500	16,500	5,000	5,500	6,000	7,000	2,600	2,000	2,400												
6 New York.....	50	7,171,126	6,569,090	3,327,184	1,808,580	1,403,320	572,036	30,649	278,444	262,943												
7 Ohio.....	9	425,731	348,800	37,000	206,800	105,000	76,931	10,650	9,432	56,849												
8 Pennsylvania.....	3	157,413	97,000	20,000	66,000	11,600	59,819	7,707	11,902	40,144												
9 Utah.....	9	238,136	166,081	105,681	32,950	28,350	71,155	30,525	31,760	8,870												
10 West Virginia.....	5	361,966	331,450	102,416	159,334	69,700	30,516	650	19,948	9,018												
11 All other states (a)	8	721,537	492,120	104,520	200,500	127,100	220,417	32,600	63,900	132,917												
AVERAGE NUMBER OF EMPLOYÉS IN EACH CLASS AND AVERAGE WEEKLY EARNINGS—continued.																						
STATES AND TERRITORIES.	Clerks.						Operatives and skilled.															
	Males above 16 years.			Females above 15 years.			Males above 16 years.			Females above 15 years.			Children.									
	Number.	Average weekly earnings per employé.	Total wages.	Number.	Average weekly earnings per employé.	Total wages.	Number.	Average weekly earnings per employé.	Total wages.	Number.	Average weekly earnings per employé.	Total wages.	Number.	Average weekly earnings per employé.								
1 The United States...	80	\$16.18	\$59,554	3	\$6.73	\$875	1,493	\$11.31	\$635,643	22	\$6.41	\$5,085	9	\$4.94	\$1,262							
2 California.....	5	20.08	5,220				48	13.14	20,810													
3 Kansas.....	14	18.34	12,558				44	13.31	24,127	1	6.92	300										
4 Michigan.....	10	15.88	6,245	1	7.09	200	555	11.74	229,030	19	6.46	4,225	9	4.94	1,262							
5 Nevada.....							5	16.33	2,830													
6 New York.....	10	14.87	14,397	2	6.40	675	501	10.42	107,259	2	5.77	600										
7 Ohio.....	7	13.14	3,700				88	8.35	28,745													
8 Pennsylvania.....	2	22.07	2,200				30	12.21	15,339													
9 Utah.....	2	21.14	733				65	12.59	30,275													
10 West Virginia.....	7	10.15	3,221				50	9.63	22,403													
11 All other states	14	17.95	11,280				107	13.57	63,916													
WEEKLY RATES OF WAGES PAID AND AVERAGE NUMBER OF EMPLOYÉS AT EACH RATE, INCLUDING OFFICERS, FIRM MEMBERS, AND CLERKS, BUT NOT THOSE EMPLOYED ON PIECEWORK. (b)																						
STATES AND TERRITORIES.	Males above 16 years.												Children.									
	Total number.	Under \$5.	\$5 and over but under \$6.	\$6 and over but under \$7.	\$7 and over but under \$8.	\$8 and over but under \$9.	\$9 and over but under \$10.	\$10 and over but under \$12.	\$12 and over but under \$15.	\$15 and over but under \$20.	\$20 and over but under \$25.	\$25 and over but under \$30.	Total number.	Under \$6.	\$6 and over but under \$7.	\$7 and over but under \$8.						
	1 The United States...	3,705	51	15	191	520	681	940	718	383	145	71	74	78	8	33	28	0	35	17	13	5
2 California.....	107				12	74	1	52	3	2	6	9	8									
3 Kansas.....	344				13	8	40	215	30	27	4	7	16	2	13	1						
4 Michigan.....	1,235	32	2	17	58	202	447	261	118	51	22	25	35	6	9	19	1	20	8	18	5	
5 Nevada.....	22					16	3			2	1											
6 New York.....	1,140	18	2	15	177	365	270	136	103	10	6	20	27	11	8	8	5	9	9	9		
7 Ohio.....	231			7	26	116	36	21	11	6	4	3	1									
8 Pennsylvania.....	50				2	3	14	23	7	3	4	5										
9 Utah.....	174				96	1	2	18	27	18	11	3										
10 West Virginia.....	105	1		10	43	21	46	27	13	2	1	2										
11 All other states	258		4		51	29	42	26	77	13	11	5										

a Includes states having less than 3 establishments, in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Illinois, 1; Kentucky, 2; Louisiana, 1; Massachusetts, 1; Texas, 2; Virginia, 1.

BY STATES AND TERRITORIES: 1890.

MISCELLANEOUS EXPENSES.								AVERAGE NUMBER OF EMPLOYÉS IN EACH CLASS AND AVERAGE WEEKLY EARNINGS.					
Total.	Rent paid for tenancy.	Taxes.	Insurance.	Repairs, ordinary, of building and machinery.	Amount paid to contractors.	Interest paid on cash used in the business.	All sundries not elsewhere reported.	Aggregates.		Officers or firm members actively engaged in the industry or in supervision.			
								Average number.	Total wages.	Number.	Average weekly earnings per employé.		
\$674,183	\$38,419	\$59,532	\$50,079	\$239,375	\$5,704	\$36,008	\$238,466	4,455	\$1,782,401	117	\$26.28	\$128,620	I
31,453	1,950	1,753	612	5,625		1,738	10,755	173	81,525	8	36.03	11,632	2
30,301	275	3,432	3,486	6,030		3,625	13,453	449	187,600	20	18.76	20,247	3
246,547	12,695	25,784	34,581	106,210	5,704	5,184	56,430	1,629	578,014	24	23.64	21,508	4
230		230					22	7,210					5
228,252		17,253	10,032	81,419		18,072	99,976	1,245	544,320	22	33.38	35,470	6
27,905		3,038	2,312	17,227		1,260	8,168	260	87,079	9	15.94	6,218	7
21,107	4,499	1,180	251	7,500			7,737	59	38,200	5	38.39	9,700	8
13,761		1,065	231	2,220		798	9,447	180	58,588	0	25.11	3,700	9
15,043		2,542	1,364	7,131		1,031	2,975	105	67,548	6	18.88	4,050	10
59,544		19,000	2,355	2,960	6,004	3,700	25,525	273	130,471	11	32.47	15,195	11

AVERAGE NUMBER OF EMPLOYÉS IN EACH CLASS AND AVERAGE WEEKLY EARNINGS—continued.												Average number of hours in an ordinary day of labor.							
Unskilled.						Pieceworkers.						Average number of hours in an ordinary day of labor.							
Males above 16 years.		Females above 15 years.		Children.		Summary.		Males above 16 years.		Females above 15 years.		Children.							
Number.	Average weekly earnings per employé.	Total wages.	Number.	Average weekly earnings per employé.	Total wages.	Number.	Average weekly earnings per employé.	Total wages.	Number.	Total wages.	Number.	Total wages.	May to November.	November to May.					
2,105	\$8.80	\$701,948	53	\$5.22	\$13,650	26	\$4.60	\$4,654	517	\$171,200	457	\$148,356	73	\$20,450	17	\$2,388	10.30	10.28	I
106	7.80	42,031							6	1,832	6	1,832					10.33	9.22	2
260	10.05	99,152	15	4.77	3,720				89	27,496	80	27,496					11.30	11.30	3
646	9.13	205,485	15	3.96	2,520	17	4.00	2,020	333	104,310	202	95,322	26	6,678	15	2,310	10.36	10.27	4
17	8.42	4,380							69	24,379	22	10,001	47	13,778			10.00	10.00	5
598	8.73	262,502	23	6.20	7,410	9	4.17	1,784									10.29	10.27	6
127	7.56	40,383							29	8,033	29	8,033					9.78	9.67	7
22	9.58	10,061							6	1,950	4	1,872					10.00	10.00	8
101	8.94	17,200							15	3,200	15	3,200					9.07	9.23	9
102	8.36	36,974														9.10	8.90	10	
126	8.05	42,880														10.75	10.63	11	

COST OF MÁTERIAIS USED.						PRODUCTS.										
Aggregate.	Fuel.					All other materials. (Dollars.)	Salt.				All other products.					
	Total.	Coal.	Wood.	Other fuel.	Aggre-gate value. (Dollars.)		Total.		Rock.		Solar.		Boiling process.			
							Bushels.	Value. (Dollars.)	Bushels.	Value.	Bushels.	Value.	Bushels.	Value.		
\$1,826,770	\$745,917	\$589,123	\$30,511	\$126,283	1,080,853	5,484,618	52,034,300	5,441,303	7,060,405	\$510,825	7,210,312	\$815,901	37,751,583	\$4,314,577	\$43,313	I
20,667	2,027	1,227	800		18,040	166,722	1,276,641	166,722			1,276,641	166,722				2
352,574	195,280	195,280			157,288	697,802	5,703,995	697,802	89,286	8,500	20,000	4,000	5,594,700	685,302		3
784,012	138,882	45,484	25,261	68,137	645,130	2,046,975	18,645,553	2,041,375			64,286	7,500	18,581,267	2,033,875	5,000	4
90	90	90			21,401	126,240	21,401				126,240	21,401				5
443,602	252,770	223,309			180,826	1,563,228	16,131,251	1,563,228	5,444,100	393,325	2,483,470	254,612	8,203,582	915,291		6
83,552	49,513	41,426			34,039	212,541	2,047,569	204,324					2,047,569	204,324	8,217	7
27,445	15,592				15,592	11,853	156,808	862,000	136,800				862,000	136,800	19,508	8
5,072	2,852	2,602	250		2,820	144,300	3,192,143	144,300	1,780	1,000	3,180,857	143,800				9
42,839	37,539	32,530			5,300	186,038	1,427,806	126,738					1,427,806	126,738	9,900	10
66,017	51,300	47,160	4,200		15,557	338,523	2,081,593	338,523	1,531,143	108,000	115,300	18,276	1,035,150	212,247	11	

b In comparing the weekly rates of wages and the number of employés at each rate with the average weekly earnings, it must be remembered that it is not practicable to obtain true average weekly earnings from the table of weekly rates, because the term of employment varies for employés at the respective rates.